

CONTRACT DOCUMENTS AND SPECIFICATIONS

FOR

RFB #06-115

**TURKEY CREEK TRAIL
SIDEWALK IMPROVEMENT**

CITY JOB NO. 572-D5-0615



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ON MAY 4, 2006.

PREPARED BY:

**CITY OF BRYAN
ENGINEERING DEPARTMENT**

May 2006

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FOR
RFB #06-115**

**TURKEY CREEK TRAIL
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CITY JOB NO. 572-D5-0615**

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DISCLOSURE REQUIREMENTS

Chapter 176 of the Texas Local Government Code mandates the public disclosure of certain information concerning persons doing business or seeking to do business with the City of Bryan, including affiliations and business and financial relationships such persons may have with City of Bryan officers. An explanation of the requirements of Chapter 176, applicable forms and a complete text of the new law are available at:

<http://www.bryantx.gov/departments/purchasing/texeth.htm>. If you are unable to obtain such information online, please contact the City of Bryan Purchasing Department, 1309 E. MLK St., Bryan, Texas 77803 or call (979)209-5500.

BY DOING BUSINESS OR SEEKING TO DO BUSINESS WITH THE CITY OF BRYAN, YOU ACKNOWLEDGE THAT YOU HAVE BEEN NOTIFIED OF THE REQUIREMENTS OF CHAPTER 176 OF THE TEXAS LOCAL GOVERNMENT CODE AND THAT YOU ARE SOLELY RESPONSIBLE FOR COMPLYING WITH THEM.

REQUEST FOR BIDS

Sealed bids will be received by the City of Bryan at the Purchasing Department Office until **Tuesday, May 23, 2006** and publicly opened and read aloud at **2:00 p.m., same date**, on the following commodities or services:

**TURKEY CREEK TRAIL
SIDEWALK IMPROVEMENT
City Job No.: 572-D5-0615
Request for Bid (RFB) Number: 06-115**

The **Turkey Creek Trail Sidewalk Improvements Project** consists of construction of approximately 5,295 lineal feet of 6' wide, 4 inch thick, steel reinforced concrete sidewalk (approximately 3530 square yards) and associated clearing, grubbing, grading, earthwork, handicap ambulatory ramps, and erosion control. All of which is described in more detail in the Drawings and the Summary of Work contained in Section 01010. Sidewalk design and construction shall be in compliance with the Texas Accessibility Standards (TAS) of the Architectural Barriers Act, Article 9102, Texas Civil Statutes and the Americans with Disabilities Act (ADA), except where noted otherwise.

A pre-bid conference is scheduled at **10 am on Tuesday, May 16, 2006**, at the Purchasing Department Conference Room at 1309 E. Martin Luther King, Jr. Street, Bryan, Texas **with a site inspection provided immediately following the conference**.

Bid forms, specifications and drawings may be secured at the Purchasing Department Office at 1309 E. Martin Luther King Street, Bryan, Texas 77803. These documents are available online at www.bryantx.gov/departments/purchasing. These documents are also available on CDROM for no charge. Cost for the printed documents will be one hundred dollars (\$100.00). The check for Plans, Specifications and Information for Bidders shall be made payable to the City of Bryan.

The City of Bryan reserves the right to accept or reject any or all bids, to waive any informalities and technicalities, to accept the offer considered most advantageous and to award the bid to the vendor offering the best value to the City of Bryan. Additionally all bidders are hereby notified that the City of Bryan shall consider all factors it believes to be relevant in the determination of the best value including, but not limited to, the proximity of the bidder as it relates to his ability to perform the contract for the City of Bryan.

SCHEDULE OF EVENTS

- Monday, May 08, 2006 & Monday, May 15, 2006– Advertisement dates.
- Tuesday, May 16, 2006 @ 10:00 a.m. C.S.T.- Pre-bid meeting to be held in the Purchasing Office, 1309 E. Martin Luther King St., Bryan, TX.
- Wednesday, May 17, 2006 @ 10:00 a.m. C.S.T. - Deadline for written requests for clarifications to the RFB.
- Tuesday, May 23, 2006 @ 2:00 p.m. C.S.T – Sealed bids delivered to the Office of the Purchasing Department, City of Bryan, 1309 E. Martin Luther King St., Bryan, TX. Bids received after the time and date set for the opening of the bid will not be accepted and will be returned unopened.
- Tuesday, June 13, 2006 Anticipated date of award

PROJECT DATA

TURKEY CREEK TRAILS SIDEWALK IMPROVEMENT

City Job No.: 572-D5-0615

This project consists of the following:

1. Construction of approximately 5,295 lineal feet of 6' wide, 4 inch thick, steel reinforced concrete sidewalk (approximately 3530 square yards) and associated clearing, grubbing, grading, earthwork, handicap ambulatory ramps, and erosion control. Sidewalk design and construction shall be in compliance with the Texas Accessibility Standards (TAS) of the Architectural Barriers Act, Article 9102, Texas Civil Statutes and the Americans with Disabilities Act (ADA), except where noted otherwise.
2. Culverts for drainage improvements will be installed by the City of Bryan, however end treatments for the installed culverts shall be provided as part of this contract.

BID PROPOSAL INSTRUCTIONS

(Proposal)

The following items must be included with the bid when it is submitted. The City reserves the right to reject any bid for failure to comply with these requirements.

The bid documents (Proposal Pages) may be removed from the specification booklet and submitted with a bid bond or cashier's check. It is not necessary to include copies of the addendums. A space to acknowledge receipt of addendums is included in the bid documents.

- ❑ An **executed Bidder's Bond** or Cashier's Check for an amount equal to 5% of the amount of the bid. The bidder's original corporate seal must be affixed to the bid bond, or a resolution from the corporation's directors must accompany the bond that authorizes an individual to sign the bid proposal on behalf of the corporation.
- ❑ A **bid proposal** that has been fully completed and signed by the person authorized to represent the company submitting the bid. The proposal must use the same form or a photocopy of the form provided in the bid document. Acknowledgment of the receipt of any and all addenda to the bids must be provided on the proposal. If the bidder is a corporation, a copy of their "**Franchise Tax Certificate of Account Status**" showing all franchise taxes are current.
- ❑ A completed "**Statement of Bidder's Qualifications**" (this item may be submitted to the City within 3 working days of the bid opening for the proposal to be considered.
- ❑ All bidders must submit with their bid the "**Felony Conviction Notification form**" contained within this bid package. Failure to acknowledge and submit the completed Felony Conviction Notification form is sufficient cause for the bid to be rejected.

Additional information regarding these items is provided in the Proposal Pages that follow.

Bidders on this work will be required to comply with the President's Executive Order No. 11246 regarding non-discrimination in employment. The requirement for bidders and contractors under this order are available at the City of Bryan Purchasing Department.

*In order to ensure a fair and public bid process, all questions related to this Request for Bid shall be addressed in writing. **Questions must be submitted in writing (US Mail, Fax or E-mail) to Teresa Johnston-Bassham at 1309 E. Martin Luther King St., Bryan, TX, 77803, 979-209-5507 or tbassham@bryantx.gov prior to 10:00 a.m. CST on Wednesday, May 17, 2006.** Contact with any City of Bryan employee or official is prohibited without prior written consent from the City Purchasing Manager. Failure to observe this requirement may be grounds for rejection of the Bid.*

CITY OF BRYAN

CITY OF BRYAN

PROPOSAL

DATE: _____

Proposal of _____

a corporation organized and existing under the laws of the State of _____;

or a partnership consisting of _____;

or an individual trading as _____:

**TO THE CITY OF BRYAN
BRYAN, TEXAS**

Gentlemen:

The undersigned hereby proposes to furnish all labor and material, tools, and necessary equipment, for the construction of the project, and to perform the work required for the construction of the said project, at the locations set out by the plans and specifications, in strict accordance with the contract documents.

The undersigned further agree to execute a contract within 10 days from the date of notification of the acceptance of this proposal, or within such time as the City of Bryan may determine, and in case the undersigned fail of neglect to appear to execute the contract within the specified time, of which this proposal, the plans, specifications, special provisions and advertisements are a part, the undersigned will be considered as having abandoned it, and the Cashier's Check or Bidder's Bond in the sum of _____ (\$ _____) Dollars accompanying this proposal will be forfeited to the City of Bryan, Texas, by reason of such failure on the part of the undersigned.

The undersigned further agree that the proposal guaranty may be retained by the City of Bryan, Texas provided the undersigned is one of the three lowest and most advantageous bidders, and that said proposal guaranty shall remain with the City of Bryan until the contract has been made by the successful bidder; otherwise, proposal guaranty may be obtained from the City Purchasing Manager after forty-eight hours from the time of opening the bids.

The undersigned certify that they are duly authorized to submit this Proposal and that this Proposal is made in good faith without collusion or connection with any other person, persons, partnership, company, firm, association or corporation offering bids on this work, and to do the work for the following bid item unit prices, their associated extended totals and sum of extended totals as listed on the following bid tabulation forms:

**BID PROPOSAL FOR
TURKEY CREEK TRAIL SIDEWALK IMPROVEMENT
CITY OF BRYAN PROJECT #572-D5-0615**

BASE BID - Section B					
ITEM NO.	APPROX. QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE IN FIGURES	AMOUNT
1	1	L.S.	Mobilization and Project Overhead		
2	1	L.S.	Furnish, Install and Maintain Erosion & Sediment Control Devices complete and in place		
3	2383	S.Y.	Clear and Grub Construction Route (10' width ave.)		
4	1430	S.Y.	Furnish and Install 4" Thick Reinforced Concrete Sidewalk complete and in place		
5	4	EACH	Furnish and Install Headwall, Endwall, Safety End Treatment (on culverts place by C.O.B.) complete and in place		
6	5	EACH	Furnish and Install 6' wide, Single, Reinforced Concrete Handicap Ramp (to ADA standards) from sidewalk to public street complete and in place		
SUB-TOTAL BID ITEMS:					
CONTINGENCY:					\$10,000.00
TOTAL BASE PRICE BID:					
TOTAL CALANDER DAYS:					60
ALTERNATE BID #1 - Section A to ADA Standards					
ITEM NO.	APPROX. QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE IN FIGURES	AMOUNT
7	1	L.S.	Mobilization and Project Overhead		
8	1	L.S.	Furnish, Install and Maintain Erosion & Sediment Control Devices complete and in place		
9	1561	S.Y.	Clear and Grub Construction Route (10' width ave.)		
10	1270	S.Y.	Furnish and Install 4" Thick Reinforced Concrete Sidewalk complete and in place		
11	1	EACH	Furnish and Install Headwall, Endwall, Safety End Treatment (on culverts place by C.O.B.) complete and in place		
12	1	EACH	Furnish and Install 6' wide, Single, Reinforced Concrete Handicap Ramp (to ADA standards) from sidewalk to public street complete and in place		
ALTERNATE BID #1 SECTION A - ADA SUBTOTAL:					
ALTERNATE BID #2 - Section A exceeding ADA Standard vertical slopes					
ITEM NO.	APPROX. QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE IN FIGURES	AMOUNT
13	1	L.S.	Mobilization and Project Overhead		
14	1	L.S.	Furnish, Install and Maintain Erosion & Sediment Control Devices complete and in place		
15	1561	S.Y.	Clear and Grub Construction Route (10' width ave.)		
16	937	S.Y.	Furnish and Install 4" Thick Reinforced Concrete Sidewalk complete and in place		
17	1	EACH	Furnish and Install Headwall, Endwall, Safety End Treatment (on culverts place by C.O.B.) complete and in place		
18	1	EACH	Furnish and Install 6' wide, Single, Reinforced Concrete Handicap Ramp (to ADA standards) from sidewalk to public street complete and in place		
ALTERNATE BID #2 SECTION A - non ADA SUBTOTAL:					

**BID PROPOSAL FOR
TURKEY CREEK TRAIL SIDEWALK IMPROVEMENT
CITY OF BRYAN PROJECT #572-D5-0615**

ALTERNATE BID # 3 - Section C

ITEM NO.	APPROX. QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE IN FIGURES	AMOUNT
19	1	L.S.	Mobilization and Project Overhead		
20	1	L.S.	Furnish, Install and Maintain Erosion & Sediment Control Devices complete and in place		
21	1939	S.Y.	Clear and Grub Construction Route (10' width ave.)		
22	1164	S.Y.	Furnish and Install 4" Thick Reinforced Concrete Sidewalk complete and in place		
23	2	EACH	Furnish and Install Headwall, Endwall, Safety End Treatment (on culverts place by C.O.B.) complete and in place		
24	1	EACH	Furnish and Install 6' wide, Single, Reinforced Concrete Handicap Ramp (to ADA standards) from sidewalk to public street complete and in place		
ALTERNATE BID #3 SECTION C SUBTOTAL:					

TOTAL BASE BID (SECTION B):	
TOTAL BASE BID (SECTION B) + ALT. BID #1 (SECTION A - ADA) SUBTOTAL :	
TOTAL BASE BID (SECTION B) + ALT. BID #2 (SECTION A - non ADA) SUBTOTAL :	
TOTAL BASE BID (SECTION B) + ALT. BID #3 (SECTION C) SUBTOTAL :	
TOTAL BASE BID (SECTION B) + ALT. BID #1 SUBTOTAL (SECTION A - ADA) + ALT. BID #3 (SECTION C) SUBTOTAL :	
TOTAL BASE BID (SECTION B) + ALT. BID #2 SUBTOTAL (SECTION A - non ADA) + ALT. BID #3 (SECTION C) SUBTOTAL :	

FELONY CONVICTION NOTIFICATION

Any person and/or business entity that enters into a contract with the City of Bryan must give advance notice to the City if any employee or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony. The notice must also describe the role that the employee, owner, or operator will perform in executing the contract. The City may require substitution of employees in the performance of the contract.

The City may terminate a contract with a person or business entity if the City determines that the person or business entity failed to give notice as required by this clause, misrepresented the conduct resulting in the conviction, or failed to substitute personnel at City's request.

I, the undersigned agent for the firm named below, certify that the information concerning notification of felony convictions has been reviewed by me and the following information furnished is true to the best of my knowledge.

Vendor's Name:

Authorized Company Official's Name (Printed)

Date

A. My firm is not owned or operated by anyone who has been convicted of a felony nor does it have any employees who have been convicted of a felony:

Signature of Company Official:

B. My firm has employee(s) or is owned or operated by the following individual(s) who has/have been convicted of a felony:

Signature of Company Official:

C. Provide a general description of the conduct resulting in the conviction of a felony.

Signature of Company Official:

D. Describe the role that the person(s) convicted of a felony will play in the performance of the contract.

Signature of Company Official:

The undersigned hereby declares that he has visited the sites and has carefully examined the plans, specifications and contract documents relating to the work covered by his bid or bids, that he agrees to do the work, and that no representations made by the City are in any sense a warranty, but are mere estimates for the guidance of the Contractor.

Upon receipt of notice of the acceptance of the bid, he will execute a formal contract within ten (10) days, and will deliver a Surety Bond in the amount of 100% of the total bid price for the faithful performance of this contract. The bid security attached, without endorsement, in the sum of _____ (\$ _____) Dollars, is to become the property of the City of Bryan in the event the contract and bond are not executed within the time above set forth, as liquidated damages for the delay and additional work caused thereby.

TIME OF COMPLETION : The undersigned agrees to complete the work within 60 calendar days from the date designated by a Work Order.

The undersigned further declares that he will provide all necessary tools, and apparatus, do all the work, and furnish all materials, and do everything required to carry out the above mentioned work covered by this proposal, in strict accordance with the contract documents, and the requirements pertaining thereto, for the sum or sums above set forth. Additionally, the undersigned affirms that the firm is willing to sign the City's Standard Form of Contract as reflected in the specifications, if awarded the contract.

Acknowledgement for Receipt of Addendums:

Addendum Number _____ Initial _____

Addendum Number _____ Initial _____

Addendum Number _____ Initial _____

Respectfully submitted,

(SEAL)
(if bidder is a corporation)

BY: _____

NOTE: Do not detach bid from other papers. Fill in with ink and submit complete with attached papers.

(Address)

(City, State, Zip)

STATEMENT OF BIDDER'S QUALIFICATIONS

Bidders who have not had a contract with the City of Bryan within the last five years must furnish sufficient written evidence that single bona fide contract, in excess of two-thirds of the face amount of this bid, have been successfully and satisfactorily completed on work of a similar nature. This evidence shall be furnished on the form that follows. The contractor must show job locations, type of projects, contract amounts, and dates completed. This information must also be furnished for any proposed subcontractors. Failure to submit this evidence shall be just cause for disqualification of the bid. The successful bidder, at the discretion of the City Council, may be required to furnish a complete financial statement prepared and certified to by a Certified Public Accountant.

STATEMENT OF BIDDER'S QUALIFICATIONS (Continued)

Name of Company: _____

Years in Business: _____

A. **REFERENCES:** List projects on which a similar type of work was performed within the past five years.

1.

Project Name:	_____	Completed Cost:	_____
Describe work: _____ _____			
Owner:	_____	Date Completed:	_____
Contact Person:	_____	Phone Number:	_____

2.

Project Name:	_____	Completed Cost:	_____
Describe work: _____ _____			
Owner:	_____	Date Completed:	_____
Contact Person:	_____	Phone Number:	_____

3.

Project Name:	_____	Completed Cost:	_____
Describe work: _____ _____			
Owner:	_____	Date Completed:	_____
Contact Person:	_____	Phone Number:	_____

4.

Project Name:	_____	Completed Cost:	_____
Describe work:			

Owner:	_____	Date Completed:	_____
Contact Person:	_____	Phone Number:	_____

5.

Project Name:	_____	Completed Cost:	_____
Describe work:			

Owner:	_____	Date Completed:	_____
Contact Person:	_____	Phone Number:	_____

6.

Project Name:	_____	Completed Cost:	_____
Describe work:			

Owner:	_____	Date Completed:	_____
Contact Person:	_____	Phone Number:	_____

STATEMENT OF BIDDER'S QUALIFICATIONS
(Continued)

B. Superintendent (field) & Project Manager (office) proposed for the project, years of experience in their position, and list of projects, which they managed.

Projects that were managed by Superintendent:

Superintendent's Name: _____	Number of Years Experience: _____
------------------------------	-----------------------------------

Projects

Project Name: _____	City/State: _____
Project Name: _____	City/State: _____
Project Name: _____	City/State: _____
Project Name: _____	City/State: _____
Project Name: _____	City/State: _____
Project Name: _____	City/State: _____

Projects that were managed by Project Manager:

Project Manager's Name: _____	Number of Years Experience: _____
-------------------------------	-----------------------------------

Projects

Project Name: _____	City/State: _____
Project Name: _____	City/State: _____
Project Name: _____	City/State: _____
Project Name: _____	City/State: _____
Project Name: _____	City/State: _____
Project Name: _____	City/State: _____

SPECIAL PROVISIONS

TURKEY CREEK TRAIL SIDEWALK IMPROVEMENT

City Job No.: 572-D5-0615



CITY OF BRYAN
The Good Life, Texas Style.™

May 2006

SPECIAL PROVISIONS-TABLE OF CONTENTS

<u>SECTION NUMBER</u>	<u>DESCRIPTION</u>
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SP 2.	Technical Specifications
SP 3.	Standard Specifications
SP 4.	Work Plan
SP 5.	Contingency
SP 6.	Submittals
SP 7.	Private Property Access and Notification
SP 8.	Mobilization and Project Overhead
SP 9.	Tree and Plant Protection
SP 10.	Damage to Existing Structures
SP 11.	Underground Utility Lines
SP 12.	Overhead Electric
SP 13.	Erosion Control
SP 14.	Clearing and Grubbing
SP 15	Excavation and Backfilling
SP 16.	Pavement Crossings
SP 17.	Sidewalk Specifications
SP 18.	Restoration of Existing Site Improvements
SP 19.	Additional Construction Items
SP 20.	Final Quantities and Punchlist Inspection
SP 21.	Final Cleanup and Finish Grading

SP 1. GENERAL:

The Bidders are expected to familiarize themselves thoroughly with the requirements contained in the General Specifications, Special Provisions, Project Data, Technical Specifications, Texas Department of Transportation (TxDOT) 2004 Standard Specifications, and the current TxDOT Material Specifications. All references to the American Standard of Testing Materials (ASTM) and other organizations shall be interpreted to mean the latest published edition as of the date proposals are opened for this project, unless specifically referenced by date or version.

Two trench failure accidents in the last 5 years or one death caused by a trench failure accident in the last 5 years will constitute grounds for disqualification of a bidder. This is not automatic however. The City will review corrective action taken and preventative measures employed by firms that exceed the foregoing criteria.

The Contractor shall comply with the TCEQ Construction General Permit No. TXR 150000.

The Bidder will accomplish the entire contract with his own forces unless City of Bryan is notified, prior to bid opening, and has approved any planned work by authorized subcontractors. Bidders shall identify the names of subcontractors they intend to employ and the approximate percent work to be performed by each subcontractor. This information shall be furnished with bids.

Any inquiries concerning this project prior to Bid Opening shall be directed to:

City of Bryan Purchasing Agent
1309 E. Martin Luther King St.
Bryan, TX 77803
979-209-5507

SP 2. TECHNICAL SPECIFICATIONS AND DETAILS:

The 2005 B/CS Unified Technical Specifications and Details are hereby made a part of these specifications. Copies of these documents are located on the City of Bryan's Website <http://www.bryantx.gov/departments/engineering/ecg/tsfc.htm>. A set must be on site at all times and will be utilized for the construction of this project. Project Specific Technical Specifications and those included with this Contract Document and will govern over the B/CS Unified Technical Specifications when a conflict arises.

SP 3. STANDARD SPECIFICATIONS:

Reference to standard specifications of Texas State Department of Highways, American Society for Testing Materials (ASTM), and other organizations shall be interpreted to mean the latest published edition as of the date proposals are opened for this project.

SP 4. WORK PLAN:

The Contractor shall be required to attend construction progress meetings as scheduled by the City's Project Manager throughout the construction of this project. The City's Project Manager may require such meetings as often as necessary to facilitate communication and coordination between the Owner and the Contractor.

Before beginning construction and at each Progress Meeting, the Contractor shall submit to the City's Project Manager a detailed construction and sequence schedule for review. The work plan shall be kept updated and detailed enough that the City's Project Manager can determine potential effects on traffic, construction signing and overall project schedule.

SP 5. CONTINGENCY:

The amount specified as "Contingency" shall be used for any authorized changes to the scope of work. Changes shall be authorized in writing by the City's Project Manager prior to work being performed.

SP 6. SUBMITTALS:

The Contractor shall submit to the Engineer for review, and approval, the following items prior to the notice to proceed is issued:

- Work Plan indicating sequence and schedule
- Material Storage Location
- Subcontractors to be used if applicable
- Cement Stabilized Sand Mix Design
- Concrete Mix Designs
- Certification for cement conformance to specification
- Fill Material – Atterberg Limits / Moisture-Density Relationship
- Select Borrow Material – Atterberg Limits / Sieve Analysis
- Test reports for all required tests

SP 7. RESIDENTIAL ACCESS AND NOTIFICATION:

The work shall be conducted as to cause no greater obstruction to the public or residences than is considered necessary by the Engineer. At least one lane of traffic on residential and 2 lanes of traffic on collectors shall remain open for use by the public at all times. The Contractor throughout construction shall maintain access to private drives.

Prior to beginning construction on any street, the residents and business owners shall be notified by the Contractor at least 48 hours in advance. Notification shall be written and hand delivered to each residence. Notices are not to be placed in mailboxes. All written notices shall be approved by the City prior to distribution. Residents shall be similarly notified when access to their drives will be blocked. The Contractor shall accommodate special needs that residents may have such as access for handicap, etc.

SP 8. MOBILIZATION AND PROJECT OVERHEAD:

The bid item “Mobilization and Project Overhead” shall include and not be limited to the following: cost to mobilize and demobilize equipment to the project site, sediment control, construction staking, the cost of bonds and insurance, and all other incidental costs associated with the project. Payment will be made on the following schedule: 25% - first month of work, 50% - upon 50% of project completion, 25% - upon final acceptance.

SP 9. TREE AND PLANT PROTECTION:

Trees larger than 12” in diameter contained within the limits of construction shall not be disturbed without prior approval. The removal of trees may be approved by the City’s Project Manager or his or her representative.

All conflicting tree roots shall be neatly saw-cut.

For trees not in direct conflict with the sidewalk construction:

The contractor shall not permit vehicle traffic or parking, construction equipment or activities to occur within the drip line of existing trees.

No construction equipment or activities shall be allowed beyond the limits of the sidewalk when under tree drip lines.

Construction equipment shall be limited to small rubber tired equipment when under tree drip lines.

Any overhanging tree limbs shall be trimmed back to the nearest junction so as to not damage the tree with the equipment.

The Contractor shall insure that tree trunks & bark are protected from gouging, scarring, or removal.

This item shall be considered subsidiary to “Clearing and Grubbing” bid item.

SP 10. DAMAGE TO EXISTING STRUCTURES:

Damage caused to any sidewalk, street, curb and gutter, drainage structure, fence, or other such structure, which is not specifically designated to be disturbed shall be restored to equal or better condition at Contractor’s expense following City of Bryan Technical Specifications and Details if the structure is damaged. The Contractor shall be responsible for notifying all other utilities that might be in the area prior to beginning work.

SP 11. UNDERGROUND UTILITY LINES:

The Contractor shall exercise caution while working at locations where proposed construction crosses or comes into proximity with an underground telephone cable, gas line, water line, sewer line, or any other utility line.

It shall be the Contractor's responsibility to obtain exact locations of all underground utility lines and appurtenances where possibility of a conflict exists. Any damage to utilities or appurtenances within and outside the limits of construction shall be repaired at the Contractor's expense in accordance with the B/CS Unified Technical Specifications and Details. The Contractor is required to complete the Utility Notification Checklist within these documents.

It is the Contractor's responsibility to notify and coordinate any repair or installation of utilities that may be required prior to construction of this project, including utilities owned by the City, with the appropriate utility owner. If it is necessary to require the assistance of any City of Bryan Department (i.e. Water Services, Transportation, etc.), a written request must be submitted to the City's Project Manager 3 full working days in advance. Depending on the type of request, a work order may need to be issued in advance. This includes but is not limited to water tie-ins, location of valves or other public utilities, etc.

SP 12. OVERHEAD ELECTRIC:

Existing power poles, guy wires, and overhead electric lines may exist in the construction area. These facilities may conflict with construction activities. Coordinate with BTU for supporting of the existing power poles, relocation of any guy wires and overhead lines. Contractor is to insure and maintain the integrity of the existing power poles and lines during construction. Contact Charles Ottaway at BTU -979-821-5786.

SP 13. EROSION CONTROL:

The contractor shall be responsible for providing erosion control measures during all phases of construction. The Contractor shall place silt fencing and inlet protection devices at locations to support compliance with TPDES regulations. The contractor shall place plastic, wood, or another barrier between spoils and paved areas to prevent the spoils from embedding into the pavement. The contractor is responsible for maintaining appropriate SWPPP documentation on site at all times in compliance with TPDES regulations.

SP 14. CLEARING AND GRUBBING:

Clearing and Grubbing shall include but not be limited to the removal of trees, shrubs, stumps, brush, roots, vegetation, and other landscape features, logs, curb and gutter, driveways, paved areas, miscellaneous stone, sidewalks, drainage structures, manholes, inlets, abandoned railroad tracks, scrap iron, and debris whether above or below ground except live utility facilities to remain.

Clearing and Grubbing shall be accomplished with great caution so as to avoid unnecessary damage to private property or existing private or public utilities. Trees not directly conflicting with proposed sidewalk construction shall be protected as outlined in SP 9 so as not to damage the tree with the equipment.

Clearing and Grubbing of large trees in conflict with proposed improvements shall be done as necessary. **Contractor shall coordinate removal of any trees with City of Bryan Project Manager prior to commencement of work.** When removing trees and stumps, also remove

tree roots within 2' of the edge of the proposed sidewalk. Backfill depressions resulting from tree and stump removal with a homogeneous clayey material with Plasticity Index between 15 and 20. compact to 98% of the maximum density as determined by ASTM D698 at a moisture content within 2 percent of optimum.

Unless otherwise specified or directed by the City of Bryan, all materials and debris to be removed, cleared or demolished shall become property of the Contractor and shall be disposed of off-site in a manner satisfactory to the Project Manager for the City of Bryan or his representative. Payment for this work shall be included in a separate Bid Item for clearing and grubbing. Price shall include full compensation for furnishing all labor, equipment, tools, supplies and incidentals necessary to complete the work.

SP 15. EXCAVATION AND BACKFILLING:

Prior to excavation, the Contractor will remove the upper topsoil from the work area, including grasses, and windrow the material along the right-of-way or easement. No classification of excavation will be made on this project. Excavation and backfilling are not separate pay items, but shall be included in the cost bid per square foot of the sidewalk.

Backfill material shall be compacted in continuous layers not exceeding six (6) inches compacted thickness. Backfill material shall be compacted to a minimum of 98 percent of maximum density as determined according to ASTM D698 at a moisture content within 2 percent of the optimum moisture content.

All excavated material not used as required shall be disposed of by the Contractor. If excavated material is placed on private property, it shall be the Contractor's responsibility to provide the City's Project Manager with a written statement stating that the property owner requested the material and is satisfied with the condition in which the property was left. Material is not to be placed in floodplain without the necessary permits.

Following backfill operations, the areas bared by construction shall be hydroseeded to ensure vegetation coverage. Erosion control measures shall be provided to avoid siltation of any existing ravines or public right-of-ways.

SP 16. PAVEMENT CROSSINGS:

All locations where the proposed sidewalk crosses a paved area, an expansion joint shall be provided. If damaged by construction activities occurring under this Contract, all paved areas shall be restored to equal or better condition existing prior to start of construction.

SP 17. SIDEWALK SPECIFICATIONS:

Sidewalk shall be constructed 6 feet wide, 4 inches thick with steel reinforcement in accordance with B/CS Unified Technical Specifications and Details.

The City of Bryan will pin flag the desired location of the sidewalk prior to construction. All earthwork and grading required to construct the sidewalk in the marked location and to ADA standards will be subsidiary to the furnish and install sidewalk line item. Section A, as shown

on plans, shall be bid to meet all ADA standards and alternate bid where greater slopes are allowed than that required by ADA.

The City of Bryan will install a pedestrian bridge at a required crossing. The sidewalk shall be installed up to and after this area and the bridge will connect the two sections.

SP 18. RESTORATION OF EXISTING SITE IMPROVEMENTS:

Contractor shall be responsible for the restoration of the Work site in public rights-of-way and easement and adjacent public or private property affected by construction operations, including but not limited to pavement, curb, gutter, sidewalks, driveways, fences, lawns and landscaping. Payment will not be made directly, but shall be considered subsidiary to the various bid items.

Remove the minimum pavement, curb and-gutter, and other structures as required to perform the Work. Remove concrete and asphaltic concrete material using sawed joints. Replace pavement, curb and gutter, sidewalks, and driveways removed or damaged as the result of construction operations.

Clean up construction debris and level the area with bank sand so that the resulting surface of the new vegetation matches the level of the existing vegetation and maintains pre-construction drainage patterns. Level minor ruts or depressions caused by construction operations where grass is still viable by filling with bank sand.

Restore grassed areas disturbed or damaged by construction. All areas bared by construction shall be hydroseeded.

Replace fencing removed or damaged, including, but not limited to, posts, caps, concrete footings, concrete curb under fence, wire mesh, wood panels, top and bottom railing.

Remove and dispose of damaged or substandard material.

Remove debris and trash resulting from day to day construction activities at the end of each working day to maintain a clean and orderly site.

SP 19. ADDITIONAL CONSTRUCTION ITEMS:

Standard control tests will be made during construction to determine that all materials and construction procedures meet the standards and specifications prescribed. The cost of test performed on materials that do not comply with specifications shall be deducted from the monthly payments to the Contractor.

The Contractor shall protect all property corner markers.

All areas where existing vegetation and grass cover have been bared by construction shall be hydroseeded to ensure grass cover and prevent erosion. This work shall be subsidiary to the various bid items.

Miscellaneous items of work (brooming, fill, grading, tie-ins, etc.) as shown in the plans that are

not covered by a specific bid item, will not be paid for directly, but shall be considered as subsidiary to the various bid items.

The Contractor shall be responsible for inspecting the project site to determine exact existing conditions that will be encountered in the construction of proposed sidewalk.

SP 20. FINAL QUANTITIES & PUNCH LIST INSPECTION:

The Contractor and the City's Inspector shall determine final quantities for each bid item. The quantities shown are estimates. A certified statement of final quantities shall be furnished to and approved by the City prior to final payment.

At the request of the Contractor on the date of substantial completion which is obtained, at a minimum, when less than 1% of contract bid items remain to be complete and/or at the direction of the Owner/City's Project Manager or City's Project Manager's Representative, the Owner shall conduct a punch list inspection to identify any work to be done which is deemed as improper or incomplete work to be corrected, or other deficiencies in the work, a list of which shall be provided to the Contractor. This punchlist will be provided to the contractor within 10 working days from date of substantial completion. If all items on the list are not completed, corrected, or otherwise resolved within 30 calendar days of the date of publication of the list, the Owner may use the retainage held from the Contractor to complete the items on the list or resume charging liquidated damages.

SP 21. FINAL CLEANUP AND FINISH GRADING:

All construction materials / debris shall be removed from all areas at the end of construction. Clean up should occur no later than 3 days from completing a section of sidewalk. The Contractor shall be responsible for removing all materials at Contractor's expense. All areas bared by construction shall be hydroseeded. Hydroseed is subsidiary to the various bid items.

TECHNICAL SPECIFICATIONS

FOR

RFB #06-115

**TURKEY CREEK TRAIL
SIDEWALK IMPROVEMENT**

City Job No.: 572-D5-0615



CITY OF BRYAN
The Good Life, Texas Style.™

May 2006

SECTION 01010

SUMMARY OF WORK

PART 1: GENERAL

1.01 LOCATION OF WORK

- A. The work of this Contract is located in Bryan, Texas, along Turkey Creek at the northwest end of West Wood Main. The Sidewalk Improvement are to be constructed for approximately 5295 lineal feet along Turkey Creek.

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and construct The Turkey Creek Trail Sidewalk Improvements as shown on the Drawing and specified herein.
- B. The Base Bid work includes, but is not necessarily limited to, the following:
 - 1. The Turkey Creek Trail Sidewalk Improvements
 - a. Mobilization, Insurance, Bonds, etc.
 - b. Erosion & Sedimentation Control
 - c. Site Preparation
 - d. 4" Thick, Steel Reinforced Concrete Sidewalk & Appurtenances
 - e. Concrete 6:1 Safety End Treatment Headwall, Wingwalls for culverts placed by City
 - f. Hydromulch Seeding

1.03 CONSTRUCTION SCHEDULE

- A. Work Sequence. The Contractor's work shall be planned and conducted in a manner that will ensure the completion in accordance with the Contract.
 - 1. No detailed work sequence is specified. However, the Contractor shall perform all work as specified and as shown on the Drawings. The work shall be Substantially Complete and Totally Complete and ready for Final Payment in the number of Calendar Days indicated in the Contract.
- B. Contractor shall provide and submit to the City's Project Manager for approval, the Schedule for work. The Schedule shall account for all the work of the Contractor and his Subcontractors and suppliers. In addition to all reasonably important construction activities, the Schedule shall provide for the proper sequence of construction considering the various crafts, purchasing time, submittal approval, material delivery, equipment fabrication, and similar time consuming factors.
- C. The Schedule shall include, as a minimum, the earliest starting and finish dates, and latest starting and finish dates, critical path and the total float for each task or item. The Contractor shall update (monitor) the schedule as necessary and shall submit to the City's Project Manager a copy of the updated schedule with each monthly pay estimate. The schedule shall contain all of the items of the Periodic Estimate and Pay Schedule.

While the Contractor bears full responsibility for scheduling all phases and stages of the work to ensure its successful prosecution and completion within the time specified in accordance with all

provisions of these Specifications, the Contractor is specifically required to complete fully or complete such stages of work to enable his Subcontractors and suppliers to complete their work within the respective times specified.

- D. If the City's Project Manager determines that operations are falling behind schedule at any time during the construction period, the Owner may require the Contractor to add to his plant, equipment and/or construction forces, including increases in working hours, in such quantities as are required to bring operations back on schedule. Upon receipt of written communication from the Owner requiring such addition, the Contractor shall furnish same at no additional cost (including extra inspection and related engineering costs) to the Owner.

1.05 PRECONSTRUCTION CONFERENCE

- A. A preconstruction conference shall be held as soon as possible after Award of Contract and before work is started. The conference will be held at a location selected by the Owner. The conference will be attended by:
 - 1. Contractor's Office Representative.
 - 2. Contractor's General Superintendent.
 - 3. Any subcontractors' or suppliers' representatives whom the Contractor may desire to invite or the City's Project Manager may request.
 - 4. City's Project Manager's Representatives.
 - 5. Owner's Representatives.
 - 6. Such other individuals that the City's Project Manager may invite.
- B. A suggested format would include but not be limited to the following subjects:
 - 1. Check of required bonds and insurance certifications.
 - 2. Liquidated damages.
 - 3. Shop drawing submittal and approval procedure.
 - 4. Chain of command, direction of correspondence, and coordinating responsibility between Contractors.
 - 5. Request for periodic job meetings for all involved.
 - 6. Introduction of the key project personnel.
 - 7. Equal opportunity requirements.
 - 8. Laboratory testing of material requirements.
 - 9. Inventory of material stored on site provisions.
 - 10. Progress estimate and payment procedure.

11. Discussion of Contractor's Safety program.

- C. The City's Project Manager will preside at the conference, prepare the minutes of the meeting and distribute copies of same to all participants who so request by fully completing the attendance form to be circulated at the beginning of the conference.

1.06 COORDINATION WITH OWNER'S OPERATIONS AND EXISTING FACILITIES

- A. Work which requires shutdown or in any way impedes the operations of other facilities shall be closely coordinated with the Owner. A minimum of 72 hours written notice shall be given to the Owner before such approval will be granted.

1.07 CONTRACTOR'S USE OF PREMISES

- A. Contractor shall assume full responsibility for security of all his/her and his/her subcontractors materials and equipment stored on the site.
- B. If directed by the Owner, move any stored items which interfere with operations of Owner.
- C. Any damage to existing facilities, including contamination, which may be caused by Contractor's personnel, callers, visitors, materials or equipment, shall be repaired or corrected at the sole expense of the Contractor.
- D. Any fence that is damaged or removed by the Contractor shall be replaced at the Contractor's expense in like kind, and to the satisfaction of the City's Project Manager.
- E. Refer to General Provisions and Requirements, Item 7.7, for additional requirements.

1.08 TRAFFIC CONTROL

- A. Refer to General Provision and Requirements, Item 7.9 and to details, notes, etc., on the Drawings for special requirements concerning street closures, working schedule, etc.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION

SECTION 01011

SITE CONDITIONS

PART 1: GENERAL

1.01 SUBSURFACE INFORMATION

- A. Subsurface investigations have not been made for this work.

1.02 SITE INVESTIGATION AND REPRESENTATION

- A. The Contractor acknowledges by submitting a bid for this Project, that he has satisfied himself as to the nature and location of the work; the general and local conditions, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads, and uncertainties of weather, river/stream stages, or similar physical conditions at the site; the conformation and conditions of the ground; the character of equipment and facilities needed preliminary to and during the prosecution of the work and all other matters which can in any way affect the work or the cost thereof under this Contract.
- B. The Contractor further acknowledges by submitting a bid for this Project, that he has satisfied himself as to the character, quality, and quantity of surface materials to be encountered from inspecting the site, as well as from information presented herein as a part of these Contract Documents. Any failure by the Contractor to acquaint himself with all the available information will not relieve him from responsibility for properly estimating the difficulty or cost of successfully performing the work. Neither the Owner nor the Design Engineer assumes responsibility for any conclusion or interpretation made by the Contractor on the basis of the information made available by the Owner or the Design Engineer.

1.03 RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

- A. Known utilities and structures adjacent to or encountered in the work are shown on the Drawings. The locations shown are taken from existing records and the best information available from existing plans; however, it is expected that there may be some discrepancies and omissions in the locations and quantities of utilities and structures shown. Those shown are for the convenience of the Contractor only, and no responsibility is assumed by either the Owner or the Design Engineer for their accuracy or completeness.
- B. Neither the Owner nor his officers or agents shall be responsible to the Contractor for damages as a result of the Contractor's failure to protect utilities encountered in the work.
- C. The Contractor shall at all times provide unobstructed access to fire hydrants, underground conduit, manholes, and water or gas valve boxes.
- D. Where the Contractor's operations could cause damage which might result in considerable expense, loss, and inconvenience when his operations are adjacent to or near railway, telegraph, telephone, television, power, oil, gas, water, sewer, irrigation, or other systems, no operations shall be commenced until the Contractor has made all arrangements necessary for the protection of these utilities and services.

- E. The Contractor shall be solely and directly responsible to the Owners and operators of such utility properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage that may result from the construction operations under this Contract.
 - F. In the event of interruption to domestic water, sewer, storm drain, or other utility services as a result of accidental breakage due to construction operations, the Contractor shall promptly notify the proper authority and cooperate with said authority in restoration of service as promptly as possible and bear all costs of repair. In no event shall interruption of any water or utility service be allowed unless prior approval is granted by the owner of the utility.
 - G. The Contractor shall replace, at his own expense, any and all other existing utilities or structures removed or damaged during construction, unless otherwise provided for in these Contract Documents.
 - H. Where existing utility lines or structures are so located as to physically conflict with permanent structures to be constructed under this Contract, the conflicting utility line or structure shall be permanently relocated. Such relocations shall be considered as required by this CONTRACT.
 - I. The Contractor shall give immediate notice to the City's Project Manager, the Owner and the owner of the utility (where applicable) when a physical conflict is determined to exist. Any delays resulting from the required relocations of the utilities are the responsibility of the Contractor.
 - J. Where existing utility lines or structures are so located as to interfere with the Contractor's prosecution of the work, but do not physically conflict with completed manholes or other permanent structures to be constructed under this Contract, any modification, alteration, or relocation of interfering utility, either permanent or temporary, shall be accomplished at the expense of the Contractor.
 - K. The Contractor shall give immediate notice to the City's Project Manager and the Owner of the utility when an interference is determined to exist and shall obtain approval to relocate such utility or to discontinue service therein from the City's Project Manager and the owner of the utility. The owner of the utility shall have the right to do all work required to discontinue, relocate, and replace interfering utilities and charge the Contractor for all costs thereof. When approved by the City's Project Manager and the owner of the utility, all work required to discontinue, relocate, and replace interfering utilities may be done by, or arranged for, by the Contractor. All such discontinuance, relocation, and replacement shall be accomplished in accordance with all requirements of the owner of the utility.
 - L. When notified by the Contractor that an interference or conflict has been determined to exist, the City's Project Manager will determine whether such interference shall be considered as required by construction or as incidental to construction.
 - M. For additional requirements refer to the General Provisions and Requirements Section 5.3 Existing Structures.
- 1.04 INTERFERING STRUCTURES
- A. Take necessary precautions to prevent damage to existing structures whether on the surface, aboveground, or underground. An attempt has been made to show major structures on the Plans. While the information has been compiled from the best available sources, its completeness and accuracy cannot be guaranteed, and it is presented as a guide to avoid known possible difficulties.

- B. Protect existing structures from damage, whether or not they lie within the right-of-way or the limits of the easements obtained by the Owner. Where existing structures must be removed to properly conduct the work, or are damaged during the work, they shall be restored at the Contractor's own expense to at least their original condition and to the satisfaction of the City's Project Manager.
- C. The Contractor may, with the approval of the City's Project Manager and without additional compensation, remove and replace in a condition as good as or better than original, any small interfering structures such as fences and signposts that interfere with the Contractor's operations.

1.05 LAND MONUMENTS

- A. The Contractor shall preserve or replace any existing Federal, State, County, City, and private land monuments encountered. All monument replacement by the Contractor shall be performed by a land surveyor licensed in the State of Texas.

1.06 PAYMENT

- A. The work specified in this Section shall be considered incidental and payment will be included as part of the appropriate lump sum or unit prices specified in the Bid Form.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1: GENERAL

1.01 BID FORM

- A. The Bid Form is a part of these Contract Documents and lists each item of Work for which payment will be made. No payment will be made for items other than those listed in the Bid Form.
- B. Required items of Work and incidentals necessary for the satisfactory completion of the Project which are not specifically listed in the Bid Form, and which are not specified in this Section to be measured or to be included in one of the items listed in the Bid Form shall be considered as incidental to the work required under this contract, and all costs thereof, including Contractor's overhead costs and profit, shall be considered as included in the prices bid for the various Bid Items. The Contractor shall prepare his bid accordingly.
- C. Work includes furnishing all plant, labor, equipment, tools and materials, and performing all operations required to complete the work satisfactorily, in place, as specified and as indicated on the Drawings.

1.02 MEASUREMENT AND PAYMENT

- A. Measurement of an item of work will be by the unit indicated in the Bid Form.
- B. Measurement will include all necessary and incidental related work not specified to be included in any other item of work listed in the Bid Form.
- C. Unless otherwise stated in individual sections of the specifications or in the Bid Form no separate payment will be made for any item of work, materials, parts, equipment, supplies, or related items required to perform and complete the requirements of any section. The costs for all such items required shall be included in the Contract price bid for item of which it is a part.
- D. Payment will be made at the Contract price per unit indicated in the Bid Form with total price of the Contract being equal to the Total Bid, as specified and as modified, by extending unit prices multiplied by quantities, as appropriate to reflect actual work included in the Project. Such price and payment shall constitute full compensation to the Contractor for furnishing all plant, labor, equipment, tools, and materials, and for performing all operations required to furnish to the Owner the entire Project, complete in place, as specified and as indicated on the Drawings.
- E. Measurement for payment does not signify acceptance of Work.
- F. Quantities shown in the Bid Form are approximate quantities only. Payment will be made only for measured quantities actually installed and accepted by Owner.
- G. Measurements, such as linear feet, will be to the nearest whole unit.
- H. Some individual technical specification sections may contain measurement and/or payment provisions that may or may not be consistent with this Section 01025 and the Bid Form. In all cases, Section 01025 and the Bid Form will take precedence over the technical specifications with regard to measurement and payment.
- I. Where estimated quantities are shown for lump sum payment items, such quantities are provided for the Contractor's information only. The City's Project Manager or Design Engineer is not responsible for the accuracy of such information and the Contractor shall perform his own calculations to verify such quantities. No adjustment will be made in the price due to real or alleged errors in the estimated quantities.

1.03 Mobilization and Project Overhead (Bid Item No. 1)

This item includes the cost of Contractor's insurance and bonds (Performance, Payment and Maintenance), the cost to mobilize and demobilize equipment to the project site, construction staking and all other incidental costs associated with the project.

Payment for this item will be made on the following schedule:

- a. 25% - first month of work.
- b. 50% - upon 50% of Project completion.
- c. 25% - upon final acceptance.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION

SECTION 01110

ENVIRONMENTAL PROTECTION PROCEDURES

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. The work covered by this Section consists of furnishing all labor, materials and equipment and performing all work required for the prevention of environmental pollution in conformance with applicable laws and regulations, during and as the result of construction operations under this Contract. For the purpose of this Specification, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and/or recreational purposes.
- B. The control of environmental pollution requires consideration of air, water and land, and involves management of noise and solid waste, as well as other pollutants.
- C. Schedule and conduct all work in a manner that will minimize the erosion of soils in the area of the work. Provide erosion control measures such as sedimentation or filtration systems, berms, silt fences, seeding, mulching or other special surface treatments as are required to prevent silting and muddying of streams, rivers, impoundments, lakes, etc. All erosion control measures shall be in place in an area prior to any construction activity in that area. Specific requirements for erosion and sedimentation controls are specified in Section 02270.
- D. These Specifications are intended to ensure that construction is achieved with a minimum of disturbance to the existing ecological balance between a water resource and its surroundings. These are general guidelines. It is the Contractor's responsibility to determine the specific construction techniques to meet these guidelines.
- E. All phases of sedimentation and erosion control shall comply with and be subject to the approval of the Texas Commission on Environmental Quality and the U.S. EPA.

1.02 APPLICABLE REGULATIONS

- A. Comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement.

1.03 NOTIFICATIONS

- A. The City's Project Manager will notify the Contractor in writing of any non-compliance with the foregoing provisions or of any environmentally objectional acts and corrective action to be taken. State or local agencies responsible for verification of certain aspects of the environmental protection requirements shall notify the Contractor in writing, through the City's Project Manager, of any non-compliance with State or local requirements. The Contractor shall, after receipt of such notice from the City's Project Manager or from the regulatory agency through the City's Project Manager, immediately take corrective action. Such notice, when delivered to the Contractor or his/her authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Owner may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of

time or for excess costs or damages by the Contractor unless it is later determined that the Contractor was in compliance.

1.04 IMPLEMENTATION

- A. Prior to commencement of the work, meet with the Owner to develop mutual understandings relative to compliance with this provision and administration of the environmental pollution control program.
- B. Remove temporary environmental control features, when approved by the City's Project Manager, and incorporate permanent control features into the project at the earliest practicable time.

1.05 PROTECTION OF WATERWAYS

- A. The Contractor shall observe the rules and regulations of the State of Texas and agencies of the U.S. Government prohibiting the pollution of any lake, stream, river, or wetland by the dumping of any refuse, rubbish, dredge material, or debris therein.
- B. Contractors are specifically cautioned that disposal of materials into any waters of the State must conform with the requirements of the Texas Commission on Environmental Quality, and an applicable permit from the U.S. Army Corps of Engineers.
- C. The Contractor shall be responsible for providing holding ponds or an approved method which will handle, carry through, or divert around his work all flows, including storm flows and flows created by construction activity, so as to prevent silting of waterways or flooding damage to the property or adjacent properties.
- D. The Contractor is responsible for researching the need for a U.S. EPA NPDES permit for the construction site. If one is required, the Contractor is responsible for obtaining the permit and for monitoring the site per the permit requirements until final completion.

1.06 DISPOSAL OF EXCESS EXCAVATION AND OTHER WASTE MATERIALS

- A. Excess excavated material not required or suitable for backfill and other waste material must be disposed of at sites which are approved to receive such waste.
- B. Unacceptable disposal sites, include, but are not limited to, sites within a wetland or critical habitat and sites where disposal will have a detrimental effect on surface water or groundwater quality.
- C. The Contractor may make his own arrangements for disposal subject to submission of proof to the City's Project Manager that the Owner(s) of the proposed site(s) has a valid fill permit issued by the appropriate governmental agency and submission of a haul route plan including a map of the proposed route(s).
- D. The Contractor shall provide watertight conveyance of any liquid, semi-liquid, or saturated solids which tend to bleed or leak during transport. No liquid loss from transported materials will be permitted whether being delivered to the construction site or being hauled away for disposal. Fluid materials hauled for disposal must be specifically acceptable at the selected disposal site.

1.07 USE OF CHEMICALS

- A. All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval

of either the U.S. Environmental Protection Agency or the U.S. Department of Agriculture or any other applicable regulatory agency. Use of all such chemicals and disposal of residues shall be in conformance with the manufacturer's instructions.

- B. Any oil or other hydrocarbon spilled or dumped on the Owner's site during construction must be excavated and completely removed from the site prior to final acceptance. Soil contaminated by the Contractor's operations shall become the property of the Contractor, who will bear all costs of testing and disposal.
- C. Before a Contractor commences work, the following steps shall be completed.
 - 1. The Owner will inform Contractor of his rights under the Texas Hazards Communication Act.
 - 2. The Owner will provide a copy of the Chemical List giving the hazardous chemicals to which the Contractor, his employees and agents may be exposed to on the project site.
 - 3. The Owner will provide copies of all MSDSs to the Contractor for the hazardous chemicals which he may be exposed to on the project site.
 - 4. The Owner will inform the Contractor of his obligation to inform his employees and agents of each of the above requirements.
 - 5. The Contractor shall provide MSDSs for all hazardous chemicals he may bring onto the project site that Owner's employees may be exposed to.
 - 6. The Contractor shall sign a Contractor Acknowledgement certifying that he has received the information provided by the Owner on hazardous chemicals and maintain the Acknowledgement with the original Contract.

1.08 PAYMENT

- A. The work specified in this Section shall be considered incidental and payment will be included as part of the appropriate lump sum or unit prices specified in the Bid Form.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION

3.01 EROSION CONTROL

- A. Provide positive means of erosion control such as shallow ditches around construction to carry off surface water. Erosion control measures, such as siltation basins, mulching, jute netting and other equivalent techniques, shall be used as appropriate. Flow of surface water into excavated areas shall be prevented. Ditches around construction area shall also be used to carry away water resulting from dewatering of excavated areas. At the completion of the work, ditches shall be backfilled and the ground surface restored to original condition.

3.02 PROTECTION OF STREAMS

- A. Care shall be taken to prevent, or reduce to a minimum, any damage to any stream from pollution by debris, sediment or other material, or from the manipulation of equipment and/or materials in or near such streams. Water that has been used for washing or processing, or that contains oils or sediments that will reduce the quality of the water in the stream, shall not be directly returned to

the stream. Such waters will be diverted through a settling basin or filter before being directed into the streams.

- B. The Contractor shall not discharge water from dewatering operations directly into any live or intermittent stream, channel, wetlands, surface water or any storm sewer. Water from dewatering operations shall be treated by filtration, settling basins, or other approved method to reduce the amount of sediment contained in the water.
- C. All preventative measures shall be taken to avoid spillage of petroleum products and other pollutants. In the event of any spillage, prompt remedial action shall be taken in accordance with a contingency action plan approved by the Texas Commission on Environmental Quality. Contractor shall submit two copies of approved contingency plans to the City's Project Manager.
- D. Water being flushed from structures or pipelines after disinfection, with a chlorine residue of 2 mg/l or greater, shall be treated with a dechlorination solution, in a method approved by the City's Project Manager, prior to discharge.

3.03 PROTECTION OF LAND RESOURCES

- A. Land resources within the project boundaries and outside the limits of permanent work shall be restored to a condition, after completion of construction, that will appear to be natural and not detract from the appearance of the project. Confine all construction activities to areas shown on the Drawings.
- B. Outside of areas requiring earthwork for the construction of the new facilities, the Contractor shall not deface, injure, or destroy trees or shrubs, nor remove or cut them without prior approval. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorage unless specifically authorized by the City's Project Manager. Where such special emergency use is permitted, first wrap the trunk with a sufficient thickness of burlap or rags over which softwood cleats shall be tied before any rope, cable, or wire is placed. The Contractor shall in any event be responsible for any damage resulting from such use.
- C. Where trees may possibly be defaced, bruised, injured, or otherwise damaged by the Contractor's equipment, dumping or other operations, protect such trees by placing boards, planks, or poles around them. Monuments and markers shall be protected similarly before beginning operations near them.
- D. Any trees or other landscape feature scarred or damaged by the Contractor's equipment or operations shall be restored as nearly as possible to its original condition. The City's Project Manager will decide what method of restoration shall be used and whether damaged trees shall be treated and healed or removed and disposed of.

All scars made on trees by equipment, construction operations, or by the removal of limbs larger than 1-in. in diameter shall be coated as soon as possible with an approved tree wound dressing. All trimming or pruning shall be performed in an approved manner by experienced workmen with saws or pruning shears. Tree trimming with axes will not be permitted.

Climbing ropes shall be used where necessary for safety. Trees that are to remain, either within or outside established clearing limits, that are subsequently damaged by the Contractor and are beyond saving in the opinion of the City's Project Manager, shall be immediately removed and replaced.

- E. The locations of the Contractor's storage, and other construction buildings, required temporarily in the performance of the work, shall be cleared portions of the job site or areas to be cleared as

shown on the Drawings and shall require written approval of the City's Project Manager and shall not be within wetlands or floodplains. The preservation of the landscape shall be an imperative consideration in the selection of all sites and in the construction of buildings. Drawings showing storage facilities shall be submitted for approval of the City's Project Manager.

- F. If the Contractor proposes to construct temporary roads or embankments and excavations for plant and/or work areas, he/she shall submit the following for approval at least ten days prior to scheduled start of such temporary work.
 - 1. A layout of all temporary roads, excavations and embankments to be constructed within the work area.
 - 2. Details of temporary road construction.
 - 3. Drawings and cross sections of proposed embankments and their foundations, including a description of proposed materials.
 - 4. A landscaping drawing showing the proposed restoration of the area. Removal of any trees and shrubs outside the limits of existing clearing area shall be indicated. The drawing shall also indicate location of required guard posts or barriers required to control vehicular traffic passing close to trees and shrubs to be maintained undamaged. The drawing shall provide for the obliteration of construction scars as such and shall provide for a natural appearing final condition of the area. Modification of the Contractor's approved drawings shall be made only with the written approval of the City's Project Manager. No unauthorized road construction, excavation or embankment construction including disposal areas will be permitted.
- G. Remove all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other vestiges of construction as directed by the City's Project Manager. It is anticipated that excavation, filling and plowing of roadways will be required to restore the area to near natural conditions which will permit the growth of vegetation thereon. The disturbed areas shall be prepared and seeded as described in Section 02490, or as approved by the City's Project Manager.
- H. All debris and excess material will be disposed of outside wetland or floodplain areas in an environmentally sound manner.

3.04 PROTECTION OF AIR QUALITY

- A. Burning. The use of burning at the project site for the disposal of refuse and debris will not be permitted.
- B. Dust Control. The Contractor will be required to maintain all excavations, embankment, stockpiles, access roads, plant sites, waste areas, borrow areas, and all other work areas within or without the project boundaries free from dust which could cause the standards for air pollution to be exceeded, and which would cause a hazard or nuisance to others.
- C. An approved method of stabilization consisting of sprinkling or other similar methods will be permitted to control dust. The use of petroleum products is prohibited. The use of chlorides may be permitted with approval from the City's Project Manager.
- D. Sprinkling, to be approved, must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the Contractor must have sufficient suitable equipment on the

job to accomplish this if sprinkling is used. Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs, as determined by the City's Project Manager.

3.05 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

- A. During the life of this Contract, maintain all facilities constructed for pollution control as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created.

3.06 NOISE CONTROL

- A. The Contractor shall make every effort to minimize noises caused by his/her operations. Equipment shall be equipped with silencers or mufflers designed to operate with the least possible noise in compliance with State and Federal regulations.

END OF SECTION

SECTION 01170

SUPPLEMENTARY PROVISIONS

PART 1: GENERAL

1.01 GENERAL OBLIGATIONS OF THE CONTRACTOR

- A. General obligations of the Contractor shall be as set forth in the Contract Documents. Unless special payment is specifically provided in the payment paragraphs of the specifications, all incidental work and expense in connection with the completion of work under the contract will be considered a subsidiary obligation of the Contractor, and all such costs shall be included in the appropriate items in the Bid Proposal in connection with which the costs are incurred.

1.02 SITE INVESTIGATION

- A. The Contractor shall satisfy himself as to the conditions existing within the project area, the type of equipment required to perform the work, the character, quality and quantity of the subsurface materials to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, as well as from information presented by the Drawings and Specifications. Any failure of the Contractor to acquaint himself with the available information will not relieve him from the responsibility for estimating properly the difficulty or cost of successfully performing the work. The Owner assumes no responsibility for any conclusions or interpretation made by the Contractor on the basis of the information made available by the Owner.

1.03 COORDINATION WITH CITY AGENCIES

- A. The Contractor shall supply the Bryan Police Department, Fire Department, Engineering Department and the Public Works Department with the following information:
 - 1. A list of streets and intersections where work will be in progress to be supplied at intervals as required by the City's Project Manager.
 - 2. Areas where approved detours are in effect.
 - 3. Immediate notification of any gas or water main breaks.
- B. The Contractor will be required to reimburse the City for the actual cost of the services of Public Works Department Personnel required by him other than regular working hours.

1.04 SHIPMENT AND DELIVERY OF EQUIPMENT

- A. Equipment shall not be shipped until approved by the City's Project Manager. The intent of this requirement is to reduce site storage time prior to installation and/or operation. Under no circumstances shall equipment be delivered to the site more than one month prior to anticipated installation without written authorization from the City's Project Manager.

B. During shipment and delivery, the following procedures shall apply:

1. All parts shall be properly protected so that no damage or deterioration will occur during a prolonged delay between time of shipment and installation, including any prolonged period at the site.
2. Factory assembled parts and components shall not be disassembled for shipment unless permission is received in writing from the City's Project Manager.
3. Finished surfaces of all exposed parts shall be properly protected against adverse conditions that may prevail from time of shipment until ready for operation.
4. All finished surfaces of all exposed flanges shall be protected by wooden blank flanges, stoutly built, and securely bolted.
5. Finished iron and steel surfaces not painted shall be protected against rust and corrosion.
6. After hydrostatic or other tests, all entrapped water shall be drained, and care taken to prevent the entrance of water during shipment, storage, and handling.
7. Each box or package shall be legibly marked to show its net weight and contents.
8. At the time of shipment, the shipping list, original bill of lading, shipping memorandum, and invoice shall be mailed in triplicate to the City's Project Manager. Each shipping list shall give the description and net weight of each item, and gross weight of the shipment. Shipment will not be accepted until the list has been received.
9. Demurrage, or other charges resulting from failure to furnish these items, shall be absorbed by the Contractor.

1.05 STORAGE AND HANDLING OF EQUIPMENT ON SITE

A. Special attention shall be given to the storage and handling of equipment on site. As a minimum, the procedure outlined below shall be followed:

1. All equipment having moving parts such as gears, electric motors, etc., and/or instruments shall be stored in a temperature and humidity controlled building approved by the City's Project Manager, until such time as the equipment is to be installed.
2. All equipment shall be stored fully lubricated with oil, grease, etc., unless otherwise instructed by the manufacturer.
3. Manufacturer's storage instructions shall be carefully studied by the Contractor and reviewed with the City's Project Manager by him. These instructions shall be carefully followed and a written record of this kept by the Contractor.
4. Moving parts shall be rotated a minimum of once weekly to insure proper lubrication and to avoid metal-to-metal "welding". Upon installation of the equipment, the Contractor shall start the equipment, at least half-load, once weekly for an adequate period of time to ensure that the equipment does not deteriorate from lack of use.
5. Lubricants shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. New lubricants shall be put into the equipment at the time of acceptance.

6. Prior to acceptance of the equipment, the Contractor shall have the manufacturer inspect the equipment to certify that its condition has not been detrimentally affected by the long storage period. Such certification by the manufacturer shall be deemed to mean that the equipment is judged by the manufacturer to be in a condition equal to that of equipment that has been shipped, installed, tested and accepted in a minimum time period. As such, the manufacturer will guaranty the equipment equally in both instances. If such a certification is not given, the equipment shall be judged to be defective. It shall be removed and replaced at the Contractor's expense.

1.06 SPECIAL PRECAUTIONS FOR HAZARDOUS CONDITIONS

- A. The Contractor is advised that work on existing sewer lines may include work within hazardous environments. The sewer collection system is subject to combustible and hazardous gases. There is no gas detection equipment in the existing sewer collection system. The Contractor shall conduct his operations in a manner to safe-guard against hazards from such gases. Safe-guards shall include ventilation system, explosion proof equipment, gas detection equipment, respiratory equipment, and other safety equipment and procedures as appropriate for the application.
- B. The Contractor may be required to apply coatings in enclosed spaces. Coatings applied in these conditions may create an environment hazardous to the workers applying them. The Contractor is responsible for understanding any possible exposure hazards and installing ventilation equipment or supplying the workers with appropriate breathing apparatus, as necessary.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1: GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

- A. This Section specifies the general methods and requirements of submissions applicable to the following work-related submittals: Shop Drawings, Product Data, Samples, Mock Ups, and Construction or Submittal Schedules. Detailed submittal requirements will be specified in the technical specifications sections.
- B. All submittals shall be clearly identified by reference to Specification Section, Paragraph, Drawing No. or Detail as applicable. Submittals shall be clear and legible and of sufficient size for sufficient presentation of data.

1.02 SHOP DRAWINGS, PRODUCT DATA, SAMPLES

A. Shop Drawings

1. Shop drawings, as defined in the General Conditions, and as specified in individual work Sections include, but are not necessarily limited to, custom-prepared data such as fabrication and erection/installation (working) drawings, scheduled information, setting diagrams, actual shopwork manufacturing instructions, custom templates, special wiring diagrams, coordination drawings, individual system or equipment inspection and test reports including performance curves and certifications, as applicable to the Work.
2. All shop drawings submitted by subcontractors for approval shall be sent directly to the Contractor for checking. The Contractor shall be responsible for their submission at the proper time so as to prevent delays in delivery of materials.
3. The Contractor shall check all subcontractor's shop drawings regarding measurements, size of members, materials, and details to satisfy himself that they conform to the intent of the Drawings and Specifications. Shop drawings found to be inaccurate or otherwise in error shall be returned to the subcontractors for correction before submission thereof.
4. All details on shop drawings submitted for approval shall show clearly the relation of the various parts to the main members and lines of the structure, and where correct fabrication of the work depends upon field measurements, such measurements shall be made and noted on the drawings before being submitted for approval.

B. Product Data

1. Product data as specified in individual Sections, include, but are not necessarily limited to, standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturer's product specification and installation instructions, availability of colors and patterns, manufacturer's printed statements of compliances and applicability, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, mill reports, product operating and maintenance instructions and recommended spare-parts listing and printed product warranties, as applicable to the Work.

C. Samples

1. Samples specified in individual Sections, include, but are not necessarily limited to, physical examples of the work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols and units of work to be used by the City's Project Manager or Owner for independent inspection and testing, as applicable to the Work.

1.03 CONTRACTOR'S RESPONSIBILITIES

- A. The Contractor shall review shop drawings, product data and samples, including those by subcontractors, prior to submission to determine and verify the following:
 1. Field measurements
 2. Field construction criteria
 3. Catalog numbers and similar data
 4. Conformance with the Specifications
- B. Each shop drawing, sample and product data submitted by the Contractor shall have affixed to it the following Certification Statement including the Contractor's Company name and signed by the Contractor: "Certification Statement: by this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements." Shop drawings and product data sheets 11-in x 7-in and smaller shall be bound together in an orderly fashion and bear the above Certification Statement on the cover sheet. The cover sheet shall fully describe the packaged data and include a listing of all items within the package. Provide to the Resident Project Representative a copy of each submittal transmittal sheet for shop drawings, product data and samples at the time of submittal of said drawings, product data and samples to the City's Project Manager.
- C. The Contractor shall utilize a 10-character submittal identification numbering system in the following manner:
 1. The first character shall be a D, S, P, M, or R, which represents Shop/Working Drawing and other Product Data (D), Sample (S), Preliminary Submittal (P), Operating/Maintenance Manual (M), or Request for Information (R).
 2. The next five digits shall be the applicable Specification Section Number.
 3. The next three digits shall be the numbers 001-999 to sequentially number each initial separate item or drawing submitted under each specific Section number.
 4. The last character shall be a letter, A-Z, indicating the submission, or resubmission of the same Drawing (i.e. A=1st submission, B=2nd submission, C=3rd submission, etc.). A typical submittal number would be as follows:

D-03300-008-B

D	= Shop Drawing
03300	= Specification Section for Concrete
008	= The eighth initial submittal under this Specification Section
B	= The second submission (first resubmission) of that particular shop drawing

- D. Notify the City's Project Manager in writing, at the time of submittal, of any deviations in the submittals from the requirements of the Contract Documents.

- E. The review and approval of shop drawings, samples or product data by the City's Project Manager shall not relieve the Contractor from his/her responsibility with regard to the fulfillment of the terms of the Contract. All risks of error and omission are assumed by the Contractor and the Engineer will have no responsibility therefor.
- F. No portion of the work requiring a shop drawing, sample, or product data shall be started nor shall any materials be fabricated or installed prior to the approval or qualified approval of such item. Fabrication performed, materials purchased or on-site construction accomplished which does not conform to approved shop drawings and data shall be at the Contractor's risk. The Owner will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.
- G. Project work, materials, fabrication, and installation shall conform with approved shop drawings, applicable samples, and product data.

1.04 SUBMISSION REQUIREMENTS

- A. Make submittals promptly in accordance with approved schedule, and in such sequence as to cause no delay in the Work or in the work of any other contractor.
- B. Each submittal, appropriately coded, will be returned within 10 Working Days following receipt of submittal by the City's Project Manager.
- C. Number of submittals required:
 - 1. Shop Drawings as defined in Paragraph 1.02 A: Six copies.
 - 2. Product Data as defined in Paragraph 1.02 B: Three copies.
 - 3. Samples: Submit the number stated in the respective Specification Sections.
- D. Submittals shall contain:
 - 1. The date of submission and the dates of any previous submissions.
 - 2. The Project title and number.
 - 3. Contractor identification.
 - 4. The names of:
 - a. Contractor
 - b. Supplier
 - c. Manufacturer
 - 5. Identification of the product, with the specification section number, page and paragraph(s).
 - 6. Field dimensions, clearly identified as such.
 - 7. Relation to adjacent or critical features of the Work or materials.
 - 8. Applicable standards, such as ASTM or Federal Specification numbers.
 - 9. Appropriately highlighted identification of deviations from Contract Documents.
 - 10. Appropriately highlighted identification of revisions on resubmittals.
 - 11. An 8-in x 3-in blank space for Contractor and City's Project Manager stamps.
- E. Submittals for equipment item/units, etc., that function together as a system/unit must have all major components submitted simultaneously so that the City's Project Manager can see how the various proposed elements will function together as a system/unit to see if the entire intent of the specifications is being met.

1.05 REVIEW OF SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

- A. The review of shop drawings, data, and samples will be for general conformance with the design concept and Contract Documents. They shall not be construed as:
 - 1. Permitting any departure from the Contract requirements;

2. Relieving the Contractor of responsibility for any errors, including details, dimensions, and materials; and/or
 3. Approving departures from details furnished by the City's Project Manager, except as otherwise provided herein.
- B. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.
- C. If the shop drawings, data or samples as submitted describe variations and show a departure from the Contract requirements which City's Project Manager finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or time for performance, the City's Project Manager may return the reviewed drawings without noting an exception.
- D. Submittals will be returned to the Contractor under one of the following codes.
- Code 1 - "APPROVED" is assigned when there are no notations or comments on the submittal. When returned under this code the Contractor may release the equipment and/or material for manufacture.
- Code 2 - "APPROVED AS NOTED". This code is assigned when a confirmation of the notations and comments IS NOT required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.
- Code 3 - "APPROVED AS NOTED/CONFIRM". This combination of codes is assigned when a confirmation of the notations and comments IS required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product. This confirmation shall specifically address each omission and nonconforming item that was noted. Confirmation is to be received by the City's Project Manager within 15 Calendar Days of the date of the City's Project Manager's transmittal requiring the confirmation.
- Code 4 - "APPROVED AS NOTED/RESUBMIT". This combination of codes is assigned when notations and comments are extensive enough to require a resubmittal of the package. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product. This resubmittal is to address all comments, omissions and non-conforming items that were noted. Resubmittal is to be received by the City's Project Manager within 15 Calendar Days of the date of the City's Project Manager's transmittal requiring the resubmittal.
- Code 5 - "NOT APPROVED" is assigned when the submittal does not meet the intent of the Contract Documents. The Contractor must resubmit the entire package revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the Contract Documents.
- Code 6 - "COMMENTS ATTACHED" is assigned where there are comments attached to the returned submittal which provide additional data to aid the Contractor.
- Codes 1 through 5 designate the status of the reviewed submittal with Code 6 showing there has been an attachment of additional data.
- E. Resubmittals will be handled in the same manner as first submittals. On resubmittals the Contractor shall direct specific attention, in writing on the letter of transmittal and on resubmitted shop drawings by use of highlighting, revision triangles or other similar methods, to revisions other than the corrections requested by the City's Project Manager, on previous submissions.

Any such revisions which are not clearly identified shall be made at the risk of the Contractor. The Contractor shall make corrections to any work done because of this type revision that is not in accordance to the Contract Documents as may be required by the City's Project Manager.

- F. Partial submittals may not be reviewed. The City's Project Manager will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the Contractor, and will be considered "Not Approved" until resubmitted. The City's Project Manager may at his/her option provide a list or mark the submittal directing the Contractor to the areas that are incomplete.
- G. If the Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, the Contractor shall give written notice thereof to the City's Project Manager at least seven working days prior to release for manufacture.
- H. When the shop drawings have been completed to the satisfaction of the City's Project Manager, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the City's Project Manager.

1.06 DISTRIBUTION

- A. Distribute reproductions of approved shop drawings and copies of approved product data and samples, where required, to the job site file and elsewhere as directed by the City's Project Manager. Number of copies shall be as directed by the City's Project Manager, but shall not exceed 6.

1.07 MOCK UPS

- A. Mock Up units as specified in individual Sections, include, but are not necessarily limited to, complete units of the standard of acceptance for that type of work to be used on the Project. Remove at the completion of the Work or when directed.

1.08 GENERAL PROCEDURES FOR SUBMITTALS

- A. Coordination of Submittal Times: Prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work sections of the Specifications, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery and similar sequenced activities. No extension of time will be authorized because of the Contractor's failure to transmit submittals sufficiently in advance of the Work.

1.09 SCHEDULE OF VALUES

- A. Within fifteen (15) calendar days after award of Contract, the Contractor shall submit to the City's Project Manager a tentative Schedule of Values (a breakdown of the lump sum bid items) for the purpose of developing an approved Schedule of Values, which in turn shall be used to determine partial payment estimates and as a basis for determining the cost of change order work.
 - 1. The tentative Schedule of Values will be reviewed by the City's Project Manager to determine whether, in the City's Project Manager's judgment, it is sufficiently detailed for the purpose intended. The City's Project Manager will also evaluate the tentative Schedule of Values to determine whether, in the City's Project Manager's judgment, the prices included are "unbalanced". Any unbalanced schedule or subsidiary items will be disallowed.
 - 2. The City's Project Manager will provide the Contractor with comments and/or may request additional information from the Contractor to justify certain item quantities and prices. On

the basis of the City's Project Manager's comments, the Contractor shall revise and resubmit the tentative Schedule of Values for further review and/or approval.

3. Once the tentative Schedule of Values is approved by the City's Project Manager, it shall become the approved Schedule of Values to be used in determining partial payment estimates. Ten (10) copies of this schedule shall be submitted to the City's Project Manager for distribution and the City's Project Manager's use.
 4. No partial payment request (including the first) shall be made or approved until the Schedule of Values has been approved by the City's Project Manager.
- B. In so far as possible, total quantities and unit prices shall be shown for all items of work, separating for each item the materials and labor and such other sub-items as the Contractor may desire. "Lump Sum", "miscellaneous", and other such general entries in the Schedule of Values shall be avoided whenever possible. Such items as Bond premiums, temporary facilities, and equipment storage may be listed separately in the Schedule of Values, provided the costs can be substantiated. Overhead and profit shall not be listed as separate items.
- C. At a minimum, the breakdown within the Schedule of Values for each bid item shall separate out the following costs (if applicable): Bond; Mobilization; Fencing; Road Material and Grading; Sidewalks; Excavation; Backfill; Waterstop; Concrete (by class); Reinforcing Steel; Miscellaneous Metals and Structural Steel; Grout; Sand; Yard Pipe, Valves, and Fittings; Manholes; Mechanical Pipe, Valves, and Fittings; Weirs, Gates, and Troughs; Mechanical Equipment; Structures (other than Concrete); Motor Control Centers; Electrical; Painting; Cleanup; Landscape; Site Work; Trench Safety; and/or any other items such as are applicable to the Work.
- D. The sum of the items listed on the Schedule of Values for each bid item shall equal the contract lump sum price for the bid item, and the total of all items included in the Schedule of Values shall equal the contract price. No additional payment will be allowed if the quantities shown on the schedule are less than those actually required to accomplish the work, unless the quantities are altered by a change order. The Schedule of Values shall not be interpreted as a means by which the contract price could be diminished.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION

SECTION 01410

TESTING LABORATORY SERVICES

PART 1: GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Owner will employ and pay for (except as noted in Paragraphs 3 and 4 below and in Paragraph 1.03A) the services of an Independent Commercial Testing Laboratory to perform specified testing upon the recommendation of the Engineer.
 - 1. Contractor shall cooperate with the laboratory to facilitate the execution of its required services.
 - 2. Employment of the laboratory shall in no way relieve Contractor's obligations to perform the Work of the Contract.
 - 3. At the option of the Engineer the source of supply of each of the materials may be accepted by him before the delivery is started and before such material is used in the work. Representative preliminary samples of the character and quality prescribed shall be submitted by the Contractor or producer of all materials to be used in the work for testing or examination as desired by the Engineer. Tests to verify quality and acceptability of materials (such as gradation, durability, hardness, etc.) proposed by the Contractor for use in the work and tests such as concrete and asphalt mix design shall be paid for by the Contractor.
 - 4. Contractor shall pay directly to the Independent Commercial Testing Laboratory or other consultant designated by the Owner or Engineer the cost of all retests of materials and work that previously failed to meet contract requirements and all tests conducted for purposes of Contractor's convenience.
 - 5. Owner will pay for soil proctor tests and tests of material and workmanship (such as soil density or gradation tests or concrete cylinders) that meet the specifications.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract: Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities.
- B. Respective Sections of Specifications: Certification of products.
- C. Testing Laboratory or other consultant inspection, sampling and testing is required for:
 - 1. Technical Specification No. 130: Excavating, Trenching, and Backfilling.
 - 2. Other sections as noted therein.

1.03 MILL TESTS

- A. The Contractor, at his own expense, shall furnish the Engineer with certified copies (in triplicate) of all required factory and mill test reports to verify material quality and composition. Any materials shipped by the Contractor from a factory or mill prior to having satisfactorily passed such testing and inspection by the Engineer shall not be incorporated in the work, unless the Engineer shall have notified the Contractor in writing that such testing and inspection will not be required. The cost of performing all mill and factory tests shall be paid by the Contractor unless otherwise required by these Contract Documents.

1.04 LABORATORY DUTIES

- A. Cooperate with Engineer and Contractor; provide qualified personnel after due notice.
- B. Perform specified inspections, sampling and testing of materials and methods of construction:
 - 1. Comply with specified standards.
 - 2. Ascertain compliance of materials with requirements of Contract Documents.
- C. Promptly notify Engineer and Contractor of observed irregularities or deficiencies of work or products.
- D. Promptly submit five copies of written report of each test and inspection to Engineer. Each report shall include:
 - 1. Date report issued.
 - 2. Project title, number and Contractor's name.
 - 3. Testing laboratory name, address and telephone number.
 - 4. Name and signature of laboratory inspector.
 - 5. Date and time of sampling or inspection.
 - 6. Record of temperature and weather conditions.
 - 7. Date of laboratory test.
 - 8. Identification of product and specification section.
 - 9. Location of sample or test in the Project.
 - 10. Type of inspection or test and if report is for a retest of material or work that was previously tested and did not meet specifications.
 - 11. Results of tests and compliance with Contract Documents.
 - 12. Interpretation of test results, when requested by Engineer.
- E. Perform additional tests as required by City's Project Manager or the Owner.

1.05 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
 - 1. Release, revoke, alter or enlarge on requirements of Contract Documents.
 - 2. Approve or accept any portion of the Work.
 - 3. Perform any duties of the Contractor.

1.06 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel, provide access to Work, and to Manufacturer's operations.
- B. Secure and deliver to the laboratory adequate quantities of representative samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete, asphalt, and other materials and mixes which require control by the testing laboratory.
- D. Furnish copies of Products test reports as required.
- E. Furnish incidental labor and facilities:
 - 1. To provide access to Work to be tested.
 - 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.

- F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
 - 1. When tests or inspections cannot be performed after such notice, reimburse Owner for laboratory personnel and travel expenses incurred due to Contractor's negligence or improper notification.
- G. Make arrangements with laboratory and pay for additional inspections, sampling, testing and retesting required:
 - 1. For the Contractor's convenience.
 - 2. When initial tests indicate Work does not comply with Contract Documents.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION

SECTION 01600

DELIVERY, STORAGE AND HANDLING

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. This Section specifies the general requirements for the delivery handling, storage and protection for all items required in the construction of the work. Specific requirements, if any, are specified with the related item.

1.02 TRANSPORTATION AND DELIVERY

- A. Transport and handle items in accordance with manufacturer's instructions.
- B. Schedule delivery to reduce long term on-site storage prior to installation and/or operation. Under no circumstances shall equipment be delivered to the site more than one month prior to installation without written authorization from the City's Project Manager.
- C. Coordinate delivery with installation to ensure minimum holding time for items that are hazardous, flammable, easily damaged or sensitive to deterioration.
- D. Deliver products to the site in manufacturer's original sealed containers or other packing systems, complete with instructions for handling, storing, unpacking, protecting and installing.
- E. All items delivered to the site shall be unloaded and placed in a manner which will not hamper the Contractor's normal construction operation or those of subcontractors and other contractors and will not interfere with the flow of necessary traffic.
- F. Provide necessary equipment and personnel to unload all items delivered to the site.
- G. Promptly inspect shipment to assure that products comply with requirements, quantities are correct, and items are undamaged. For items furnished by others (i.e. Owner, other Contractors), perform inspection in the presence of the City's Project Manager. Notify City's Project Manager verbally, and in writing, of any problems.

1.03 STORAGE AND PROTECTION

- A. Store and protect products in accordance with the manufacturer's instructions, with seals and labels intact and legible. Storage instruction shall be studied by the Contractor and reviewed with the City's Project Manager by him/her. Instruction shall be carefully followed and a written record of this kept by the Contractor. Arrange storage to permit access for inspection.
- B. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- C. Cement and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All structural, miscellaneous and reinforcing steel shall be stored off the ground or otherwise to prevent accumulations of dirt or grease, and in a position to prevent accumulations of standing water and to minimize rusting. Beams shall be stored with the webs vertical. Precast concrete shall be handled and stored in a manner to prevent accumulations of dirt, standing water,

staining, chipping or cracking. Brick, block and similar masonry products shall be handled and stored in a manner to reduce breakage, cracking and spalling to a minimum.

- D. All mechanical and electrical equipment and instruments subject to corrosive damage by the atmosphere if stored outdoors (even though covered by canvas) shall be stored in a weathertight building to prevent injury. The building may be a temporary structure on the site or elsewhere, but it must be satisfactory to the City's Project Manager. Building shall be provided with adequate ventilation to prevent condensation. Maintain temperature and humidity within range required by manufacturer.
1. All equipment shall be stored fully lubricated with oil, grease and other lubricants unless otherwise instructed by the manufacturer.
 2. Moving parts shall be rotated a minimum of once weekly to insure proper lubrication and to avoid metal-to-metal "welding". Upon installation of the equipment, the Contractor shall start the equipment, at least half load, once weekly for an adequate period of time to ensure that the equipment does not deteriorate from lack of use.
 3. Lubricants shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. New lubricants shall be put into the equipment at the time of acceptance.
 4. Prior to acceptance of the equipment, the Contractor shall have the manufacturer inspect the equipment and certify that its condition has not been detrimentally affected by the long storage period. Such certifications by the manufacturer shall be deemed to mean that the equipment is judged by the manufacturer to be in a condition equal to that of equipment that has been shipped, installed, tested and accepted in a minimum time period. As such, the manufacturer will guaranty the equipment equally in both instances. If such a certification is not given, the equipment shall be judged to be defective. It shall be removed and replaced at the Contractor's expense.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION

SECTION 01700

CONTRACT CLOSEOUT

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. This Section specifies administrative and procedural requirements for project closeout, including, but not limited to:
 - 1. Closeout procedures.
 - 2. Final cleaning.
 - 3. Adjusting.
 - 4. Project record documents.
 - 5. Spare parts and maintenance materials.

1.02 RECORD DOCUMENTS

- A. Maintain on-site, one set of the following documents; actual revisions to the Work shall be recorded in these documents:
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other Modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and Modifications.
- E. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 3. Field changes of dimension and detail.
 - 4. Details not on original Contract Drawings.
- F. Submit documents to City's Project Manager with Application for Final Payment.

1.03 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for City's Project Manager's inspection.
- B. Provide submittals to Owner that are required by governing or other authorities.
- C. Submit Application for Final Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

1.04 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

1.05 FINAL INSPECTION

- A. After final cleaning and restoration and upon written notice from the Contractor that the work is completed, the City's Project Manager will make a preliminary inspection with the Owner and the Contractor present. Upon completion of this preliminary inspection, the City's Project Manager will notify the Contractor, in writing, of any particulars in which this inspection reveals that the work is defective or incomplete.
- B. Upon receiving written notice from the City's Project Manager, the Contractor shall immediately undertake the work required to remedy deficiencies and complete the work to the satisfaction of the City's Project Manager.
- C. When the Contractor has corrected or completed the items as listed in the City's Project Manager's written notice, he shall inform the City's Project Manager, in writing, that the required work has been completed. Upon receipt of this notice, the City's Project Manager, in the presence of the Owner and the Contractor, will make his final inspection of the project.
- D. Should the City's Project Manager find all work satisfactory at the time of his inspection, the Contractor will be allowed to make application for final payment in accordance with the provisions of the General Conditions. Should the City's Project Manager still find deficiencies in the work, the City's Project Manager will inform the Contractor of the deficiencies and will deny the Contractor's request for final payment until such time as the Contractor has satisfactorily completed the required work.

1.06 ACCESSORY ITEMS

- A. The Contractor shall provide to the Owner, upon acceptance of the equipment, all special accessories required to place each item of equipment in full operation. These special accessory items include, but are not limited to, the specified spare parts, adequate oil and grease as required for the first lubrication of the equipment, initial fill-up of all chemical tanks and fuel tanks, light bulbs, fuses, hydrant wrenches, valve wrenches, valve keys, handwheels, and other expendable items as required for initial startup and operation of all equipment.

1.07 GUARANTEES, BONDS, AND AFFIDAVITS

- A. No application for final payment will be accepted until all guarantees, bonds, certificates, licenses, and affidavits required for work or equipment as specified are satisfactorily filed with the City's Project Manager.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION

SECTION 02080

BARRICADES, SIGNS AND TRAFFIC HANDLING

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required and provide, install, move, replace, maintain, clean and remove temporary or permanent street closure barricades, signs, flaggers or other devices required to handle the traffic in conformance with the current edition of the Texas Manual of Uniform Traffic Control Devices for Streets and Highways and as directed by the City's Project Manager.

PART 2: PRODUCTS

2.01 SIGNS

- A. Sign Plates - 0.080 in thickness alodine finished Federal Specification 6061 - T6 aluminum.
- B. Sign Posts - 1.25 ounce/square foot hot dipped galvanized welded steel tubing ASTM A513, O.D. 2.375 inches, wall thickness 0.065 inch, 1.60 pounds per foot, or 4" x 4" treated lumber.
- C. Hardware - Aluminum alloy ASTM A 444 sign hardware for clamp casting or stainless steel with galvanized or electroplated cold rolled steel U bolts, bolts, washers and nuts.

2.02 SIGN PLATE MESSAGE AND SIZE

- A. The sign designation, message, size, number and location are shown on the Drawings.

2.03 LUMBER

- A. Rails shall be new unweathered S4S grade #2 fir or yellow pine, of the size indicated.
- B. Posts, of the size indicated, shall be pressure treated with pentachlorophenol.

PART 3: EXECUTION

3.01 CONSTRUCTION METHODS

- A. Prior to commencing the construction, suitable "Barricades, Signs and Traffic Handling Devices" shall be installed to protect the workers and the public.
- B. The Contractor shall be responsible for installing all markers, signs and barricades conforming to the Manual on Uniform Traffic Control Devices and/or as indicated. If, in the opinion of the City's Project Manager, additional markers, signs, flaggers or barricades are needed in the interest of safety, the Contractor shall install such as are required or as directed by the City's Project Manager.

- C. When the construction operation is such that the public will not be affected during non-working hours, the markers, signs and barricades shall be placed each day before construction along a public roadway and shall be removed at the end of the day when construction ceases. The signage shall be moved along with construction operations as they progress in order to protect the workers and the public.
- D. All flagmen shall use appropriately sized and colored flags and wear brightly colored vests.

3.02 MAINTENANCE

- A. It shall be the Contractor's responsibility to maintain, clean, move and replace if necessary, barricades, signs and traffic handling devices during the time required for construction of the project. When no longer needed, all temporary Barricades, Signs and Traffic Handling Devices shall be removed and the area restored to its original condition or as directed by the City's Project Manager.

END OF SECTION

SECTION 02100

SITE/RIGHT-OF-WAY PREPARATION

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. This item shall consist of furnishing all labor, materials, equipment and incidentals required and preparing the site/right-of-way for construction operations by removing and disposing of all obstructions from the site/right-of-way and from designated easements, where removal of such obstructions is not otherwise indicated.

Such obstructions shall be considered to include remains of houses and other structures not completely removed by others, foundations, floor slabs, concrete, brick, lumber, plaster, cisterns, water wells, septic tanks or basements; abandoned utility pipes, conduits or foundations; underground service station tanks, equipment or other foundations; fences, retaining walls, outhouses, shacks and all other debris.

This item shall also include the removal of trees, stumps, roots, bushes, shrubs, curb and gutter, driveways, paved parking areas, miscellaneous stone, brick, concrete, sidewalks, drainage structures, manholes, inlets, abandoned railroad tracks, metal railing, scrap iron, all rubbish and debris whether above or below ground, except live utility facilities.

1.02 RELATED WORK

- A. Environmental Protection Procedures are included in Section 01110.
- B. Sedimentation and Erosion Control is included in Section 02270.
- C. Loaming and Hydroseeding is included in Section 02490.

1.03 SUBMITTALS

- A. Submit to the City's Project Manager, in accordance with Section 01300, copies of all permits required prior to clearing, grubbing, and stripping work.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION

3.01 GENERAL

- A. Prior to commencing this work, all required sedimentation and erosion control and tree protection measures shall be in place and utilities located and protected. Areas within the construction limits as indicated shall be cleared of all obstructions, vegetation, abandoned structures as defined above; except trees or shrubs indicated for preservation, which shall be carefully trimmed as directed and shall be protected from scarring, barking or other injuries during construction operations. Exposed ends of pruned limbs or scarred bark shall be pruned, trimmed and treated with an approved tree wound dressing material within 24 hours of the pruning or injury.
- B. Construction equipment shall not be operated within the drip line of trees, unless otherwise indicated. Construction materials shall not be stockpiled under the canopies of trees. No excavation or embankment shall be placed within the drip line of trees until tree wells are constructed.
- C. Unless otherwise indicated, all underground obstructions, stumps and roots shall be removed to the following depths:
 - 1. In areas to receive 6 inches or more embankment, a minimum of 12 inches below natural ground.
 - 2. In areas to receive embankment of less than 6 inches and areas to be excavated, 18 inches below the lower elevation of the embankment, structure or excavation.

3. All other areas, 12 inches below natural ground.

- D. Holes remaining after removal of all obstructions, objectionable material, trees, stumps, etc., shall be backfilled with select common fill and tamped.
- E. When a utility in service conflicts with the construction, it shall be modified as set forth in other sections of these Specifications.
- F. Where an abandoned existing underground piping utility is found, it shall be cut and plugged with concrete, brick and mortar, or a precast stopper grouted in place as directed by the City's Project Manager.
- G. No stumps, trees, limbs or brush shall be buried in any fills or embankments.

3.02 CLEARING

- A. Cut and remove all timber, trees, stumps, brush, shrubs, roots, grass, weeds, rubbish and any other objectionable material resting on or protruding through the surface of the ground.
- B. Preserve and protect trees and other vegetation designated on the Drawings or directed by the City's Project Manager to remain as specified below.

3.03 GRUBBING

- A. Grub and remove all stumps, roots in excess of 12-inches in diameter, matted roots, brush, timber, logs, concrete rubble and other debris encountered to a depth as specified in Paragraph 3.01 C above.
- B. Refill all grubbing holes and depressions excavated below the original ground surface with suitable materials and compact to a density conforming to the surrounding ground surface.

3.04 STRIPPING

- A. Strip topsoil from all areas to be occupied by buildings, structures, and roadways and all areas to be excavated or filled.
- B. Topsoil shall be free from brush, trash, large stones and other unacceptable extraneous material. Avoid mixing topsoil with subsoil.
- C. Stockpile and protect topsoil until it is used in landscaping, loaming and seeding operations. Dispose of surplus topsoil after all work is completed.

3.05 DISPOSAL

- A. Dispose of material and debris from site preparation operations by hauling such materials and debris to an approved offsite disposal area. No rubbish or debris of any kind shall be buried on the site.
- B. Burning of cleared and grubbed materials, or other fires for any reason, will not be permitted.

3.06 PROTECTION

- A. Trees and other vegetation designated on the Drawings or directed by the City's Project Manager to remain shall be protected from damage by construction operations by erecting suitable barriers, guards and enclosures, or by other approved means. Conduct clearing operations in a manner to prevent falling trees from damaging trees and vegetation designated to remain and to the work being constructed and so as to provide for the safety of employees and others.
- B. Maintain protection until all work in the vicinity of the work being protected has been completed.

- C. Do not operate heavy equipment or stockpile materials within the branch spread of existing trees.
- D. Immediately repair any damage to existing tree crowns, trunks, or root systems. Roots exposed and/or damaged during the work shall immediately be cut off cleanly inside the exposed or damaged area. Treat cut surfaces with an acceptable tree wound paint and topsoil spread over the exposed root area.
- E. When work is completed, remove all dead and downed trees. Live trees shall be trimmed of all dead and diseased limbs and branches. All cuts shall be cleanly made at their juncture with the trunk or preceding branch without injury to the trunk or remaining branches. Cuts over 1-inch in diameter shall be treated with an acceptable tree wound paint.
- F. Restrict construction activities to those areas within the limits of construction designated on the Drawings, within public rights-of-way, and within easements provided by the Owner. Adjacent properties and improvements thereon, public or private, which become damaged by construction operations shall be promptly restored to their original condition, to the full satisfaction of the property owner.

END OF SECTION

SECTION 02270

SEDIMENTATION AND EROSION CONTROL

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals necessary to perform all installation, maintenance, removal and area cleanup related to sedimentation and erosion control work as shown on the Drawings and as specified herein. The work shall include, but not necessarily be limited to; installation of temporary access ways and staging areas, silt fences, sediment removal and disposal, device maintenance, removal of temporary devices, temporary mulching, erosion control blankets and final cleanup.

1.02 RELATED WORK

- A. Loaming and hydroseeding are included in Section 02490.

1.03 SUBMITTALS

- A. Within 10 days after award of Contract, the Contractor shall submit to the City's Project Manager for approval, technical product literature for all commercial products to be used for sedimentation and erosion control.

1.04 QUALITY ASSURANCE

- A. The Contractor shall be responsible for the timely installation and maintenance of all sedimentation control devices necessary to prevent the movement of sediment from the construction site to off-site areas or into the stream system via surface runoff or underground drainage systems. Measures in addition to those shown on the Drawings necessary to prevent the movement of sediment off-site shall be installed, maintained, removed, and cleaned up at the expense of the Contractor. No additional charges to the Owner will be considered.

PART 2: PRODUCTS

2.01 MATERIALS

- A. Crushed stone for stabilized construction entrances shall be 4" - 8" Coarse Aggregate, consisting of hard, durable particles of uniform size and gradation, free from sand, heavy weight, clay, excess fine and deleterious materials.
- B. Silt Fence
 - 1. Posts shall be painted or galvanized steel Tee posts a minimum of 48" feet in length, with a minimum weight of 1.3 pounds per foot with self-fastening tabs and a 5" by 4" (nominal) steel anchor plate at bottom. Posts and anchor plates shall conform to ASTM A702.
 - 2. Welded wire fabric shall be 2-in by 4-in mesh of 12 gauge by 12 gauge steel wire.
 - 3. Silt fence fabric shall be a woven, polypropylene, ultraviolet resistant material such as Mirafi 100X as manufactured by Mirafi, Inc., Charlotte, NC, or approved equal.
 - 4. Tie wires for securing silt fence fabric to wire mesh shall be light gauge metal clips (hog rings), or 1/32-in diameter soft aluminum wire.

5. Prefabricated commercial silt fence may be substituted for built-in-field fence. Pre-fabricated silt fence shall be "Envirofence" as manufactured by Mirafi Inc., Charlotte, NC, or approved equal.
- C. Erosion control blanket shall be installed as shown on the Drawings. The erosion control blanket shall be AMXCO Curlex Blanket as manufactured by American Excelsior Company, Arlington, TX, or equal.

PART 3: EXECUTION

3.01 INSTALLATION

A. Silt Fence

1. Silt fences shall be positioned as indicated on the Drawings and as necessary to prevent off-site movement of sediment produced by construction activities as directed by the City's Project Manager.
2. Dig trench approximately 6-in wide and 6-in deep along proposed fence lines.
3. Drive metal-stakes, 6 feet on center (maximum) at back edge of trenches. Stakes shall be driven 12 inches (minimum) into ground.
4. Hang 2" by 4" woven wire mesh on posts, setting bottom of wire in bottom of trench. Secure wire to posts with 11 ½ gauge galvanized T-post clips. The top of the wire to be 24" above ground level. The welded wire mesh to be overlapped 6" and tied at least 6 times with hog rings.
5. Hang filter fabric on wire carrying to bottom of trench with about 6" of fabric laid across bottom of trench. Stretch fabric fairly taut along fence length and secure with tie wires 12" O.C. both ways. The silt fence shall be a minimum of 24 inches high.
6. Backfill trench with excavated material and tamp.
7. Install pre-fabricated silt fence according to manufacturer's instructions.

- B. Erosion control blankets shall be installed as shown on the Drawings and as directed by the City's Project Manager in accordance with manufacturer's instructions. The area to be covered shall be properly prepared, fertilized and seeded before the blanket is applied. When the blanket is unrolled, the netting shall be on top and the fibers in contact with the soil over the entire area. The blankets shall be applied in the direction of water flow and stapled. Side overlaps shall be 4" minimum. The staples shall be made of wire, 0.091" in diameter or greater, "U" shaped with legs 10-inches in length and a 1½" crown. The staples shall be driven vertically into the ground, spaced approximately two linear feet apart on each side and one row in the center alternately spaced between each side. Adjoining blankets shall not be overlapped and shall utilize a common row of staples to attach.

3.02 MAINTENANCE AND INSPECTIONS

A. Inspections

1. Contractor shall make a visual inspection of all sedimentation and erosion control devices once per week and promptly after every rainstorm. If such inspection reveals that additional measures are needed to prevent movement of sediment to offsite areas, Contractor shall promptly install additional devices as needed. Sediment and erosion control devices in need of maintenance shall be repaired promptly.

B. Device Maintenance

1. Silt Fences

- a. Remove accumulated sediment once it builds up to one-half of the height of the fabric.
- b. Replace damaged fabric, or patch with a 2-foot minimum overlap.
- c. Make other repairs as necessary to ensure that the fence is filtering all runoff directed to the fence.

3.03 REMOVAL AND FINAL CLEANUP

- A. Once the site has been fully stabilized against erosion, remove sediment and erosion control devices and all accumulated silt. Dispose of silt and waste materials in proper manner. Regrade all areas disturbed during this process and stabilize against erosion with surfacing materials as specified and as shown on the Drawings.

END OF SECTION

SECTION 02490

LOAMING, HYDROSEEDING AND EROSION CONTROL

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required, provide erosion control and place topsoil, finish grade, apply fertilizer, hydraulically apply seed and mulch and maintain all seeded areas as shown on the Drawings and as specified herein, including all areas disturbed by the Contractor.

1.02 RELATED WORK

- A. Stripping and stockpiling topsoil is included in Section 02100.

1.03 SUBMITTALS

- A. Samples of all materials shall be submitted for inspection and acceptance upon City's Project Manager's request.

PART 2: PRODUCTS

2.01 MATERIALS

- A. Topsoil shall be fertile, friable, natural topsoil typical of topsoil of the locality and shall be obtained from a well drained site that is free of flooding. The material locally referred to as sandy loam will not be acceptable. It shall be without admixture of subsoil or slag and free of stones, lumps, plants or their roots, sticks, clay, peat and other extraneous matter and shall not be delivered to the site or used while in a frozen or muddy condition. Topsoil as delivered to the site or stockpiled shall have pH between 6.0 and 7.0 and shall contain not less than 3 percent organic matter as determined by loss of ignition of moisture-free samples dried at 100 degrees Celsius. The topsoil shall meet the following mechanical analysis:

	<u>Percentage Finer</u>
1-in screen opening	100
No. 10 mesh	95 - 100
No. 270 mesh	35 - 75
0.002 mm*	5 - 25

* Clay size fraction determined by pipette or hydrometer analysis.

At least ten days prior to anticipated start of topsoiling operations a one pint sample of topsoil material shall be delivered to the City's Project Manager for testing and approval. Based on tests performed by the City's Project Manager, the topsoil shall be identified as acceptable, acceptable with certain fertilizer applications, or unacceptable. If the topsoil is found acceptable, the fertilizer requirements will be as specified or as recommended by the City's Project Manager. If the topsoil is found unacceptable, the Contractor will be responsible for identifying another source of topsoil and shall incur all expenses associated with testing additional samples. All topsoil incorporated into the site work shall match the sample provided to the City's Project Manager for testing. Topsoil stockpiled under other Sections of this Division may be used subject to the testing and approval outlined above. Contractor will be responsible for screening stockpiled topsoil and providing additional topsoil as required at his/her own expense.

- B. Fertilizer shall be commercial mixed free flowing granules or pelleted fertilizer, 10-20-10 (N-P₂O₅-K₂O) grade for lawn and naturalized areas. Fertilizer shall be delivered to the site in original unopened contain-

ers each showing the manufacturer's guaranteed analysis conforming to applicable state fertilizer laws. At least 40 percent of the nitrogen in the fertilizer used shall be in slowly available (organic) form.

- C. Seed shall be labeled in accordance with USDA Rules and Regulations under the Federal Seed Act and applicable State seed laws. Seed shall be furnished in sealed bags or containers bearing the date of the last germination, which date shall be within a period of 6 months prior to commencement of planting operations. Seed shall be from same or previous year's crop; each variety of seed shall have a purity of not less than 85 percent, a percentage of germination of not less than 90 percent, shall have a weed content of not more than 1 percent and contain no noxious weeds.

The seed shall be furnished and delivered premixed. A manufacturer's certificate of compliance to the specified mixes shall be submitted by the manufacturers for each seed type. These certificates shall include the guaranteed percentages of purity, weed content and germination of the seed and also the net weight and date of shipment. No seed may be sown until the Contractor has submitted the certificates.

Seed shall be delivered in sealed containers bearing the dealer's guaranteed analysis.

- D. Mulch shall be a specially processed cellulose fiber containing no growth or germination-inhibiting factors. It shall be manufactured in such a manner that after addition and agitation in slurry tanks with water, the fibers in the material become uniformly suspended to form a homogeneous slurry. When sprayed on the ground, the material shall allow absorption and percolation of moisture. Each package of the cellulose fiber shall be marked by the manufacturer to show the air dry weight content and not contain in excess of 10 percent moisture.
- E. Erosion control blanket installed in all drainage swales and ditches as directed by the City's Project Manager shall be AMXCO Curlex Blanket as manufactured by American Excelsior Company, Arlington, TX.

PART 3: EXECUTION

3.01 APPLICATION

- A. Unless otherwise shown on the Drawings, topsoil shall be placed to a minimum compacted depth of 6-in and seed applied on all disturbed areas of the site not covered with structures, pavement, or existing woodland.
- B. For all areas to be seeded:
1. Fertilizer (10-20-10) shall be applied at the rate of fifteen pounds per 1,000 square feet, or as determined by the soil test.
 2. Seed shall be applied at the rates described below.

The seed mixtures shall consist of seed proportioned by weight as follows:

- a. Lawn Areas (For developed lots within the City)

Hulled Bermuda Grass	45 lb/acre
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- b. Natural Area Seed Mix (For all other areas)

Green Sprangletop	3 lbs/acre
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Little Bluestem	5.5 lbs/acre
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Switchgrass	6 lbs/acre
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Indiangrass	7.5 lbs/acre
Sideoats Grama	9 lbs/acre
Buffalograss	26.5 lbs/acre

- c. All seeding shall be done between the dates specified, except as specifically authorized in writing. If seeding is authorized to be done outside the dates specified the seed shall be seeded with the addition of winter fescue (Kentucky 31) at a rate of 100 lb. per acre.

3. Fiber mulch shall be applied at the rate of 40 pounds per 1,000 square feet.

- C. The application of fertilizer may be performed hydraulically in one operation with hydroseeding and fiber mulching. The Contractor is responsible for cleaning all structures and paved areas of unwanted deposits of the hydroseeded mixture.

3.02 INSTALLATION

- A. Previously established grades, as shown on Drawings shall be maintained in a true and even condition.
- B. Subgrade shall be prepared by tilling prior to placement of topsoil to obtain a more satisfactory bond between the two layers. Tillage operations shall be across the slope. Tillage shall not take place on slopes steeper than 2 horizontal to 1 vertical or where tillage equipment cannot be operated. Tillage shall be accomplished by discing or harrowing to a depth of 9-in parallel to contours. Tillage shall not be performed when the subgrade is frozen, excessively wet, extremely dry, or in other conditions which would not permit tillage. The subgrade shall be raked and all rubbish, sticks, roots and stones larger than 2-in shall be removed. Subgrade surfaces shall be raked or otherwise loosened immediately prior to being covered with topsoil.
- C. Topsoil shall be placed over approved areas to a depth sufficiently greater than required so that after natural settlement and light rolling, the complete work will conform to the lines, grades and elevations indicated. No topsoil shall be spread in water or while frozen or muddy.
- D. After topsoil has been spread, it shall be carefully prepared by scarifying or harrowing and hand raking. All stiff clods, lumps, roots, litter and other foreign material shall be removed from the topsoiled area and disposed of by the Contractor. The areas shall also be free of smaller stones, in excessive quantities, as determined by the City's Project Manager. The whole surface shall then be rolled with a hand roller weighing not more than 100 pounds per foot of width. During the rolling, all depressions caused by settlement or rolling shall be filled with additional topsoil and the surface shall be regraded and rolled until a smooth and even finished grade is created.
- E. Seeding, mulching and conditioning shall only be performed during those periods within the seasons which are normal for such work as determined by the weather and locally accepted practice, as approved by the City's Project Manager. The Contractor shall hydroseed only on a calm day.
- F. Schedules for seeding and fertilizing must be submitted to the City's Project Manager for approval prior to the work. Seeding as specified herein shall be accomplished between the period of March 1 to June 1. Seeding during the period from October 1 to March 1 shall only be undertaken upon approval of the City's Project Manager. Seeding during the period from June 1 to October 1 shall only be performed if irrigation is provided.
- G. Seeding shall be done within ten days following soil preparation. Seed shall be applied hydraulically at the rates and percentages indicated. The spraying equipment and mixture shall be so designed that when the mixture is sprayed over an area, the grass seed and mulch shall be equal in quantity to the specified rates. Prior to the start of work, the Contractor shall furnish the City's Project Manager with a certified statement as to the number of pounds of materials to be used per 100 gallons of water. This statement shall also specify the number of square feet of seeding that can be covered with the quantity of solution in

the Contractor's hydroseeder. Upon completion of seeding operations, the Contractor shall furnish the City's Project Manager with a certified statement on the actual quantity of solution applied.

- H. In order to prevent unnecessary erosion of newly topsoiled and graded slopes and unnecessary siltation of drainageways, the Contractor shall conduct seeding and mulching as soon as he/she has satisfactorily completed a unit or portion of the project. For the purpose of this project, a unit is defined as 10,000 square feet. When protection of newly topsoiled and graded areas is necessary at a time which is outside of the normal seeding season, the Contractor shall protect those areas by whatever means necessary as approved by the City's Project Manager and shall be responsible for prevention of siltation in the areas beyond the limit of work.
- I. Erosion control blankets shall be installed in all drainage swales and ditches and on slopes exceeding 15% as directed by the City's Project Manager in accordance manufacturer's instructions. The area to be covered shall be properly prepared, fertilized and seeded before the blanket is applied. When the blanket is unrolled, the netting shall be on top and the fibers in contact with the soil over the entire area. The blankets shall be applied in the direction of water flow and stapled. Blankets shall be placed a minimum of three rows (of four foot) wide (total 12-ft width) within the drainage swale/ditch and stapled together in accordance with manufacturer's instructions. Side overlaps shall be 4-in. minimum. The staples shall be made of wire, .091-in. in diameter or greater, "U" shaped with legs 10-in. in length and a 1½-in. crown. The staples shall be driven vertically into the ground, spaced approximately two linear feet apart on each side and one row in the center alternately spaced between each side.
- J. When newly graded subgrade areas cannot be topsoiled and seeded because of season or weather conditions and will remain exposed for more than 30 days, the Contractor shall protect those areas against erosion and washouts by whatever means necessary, such as straw applied with a tar tack, wood chips or by other measures as approved by the City's Project Manager. Prior to application of topsoil, any such materials applied for erosion control shall be thoroughly incorporated into the subgrade by discing. Fertilizer shall be applied prior to spreading of topsoil.
- K. On slopes, the Contractor shall provide against washouts by an approved method. Any washout which occurs shall be regraded and reseeded at the Contractor's expense until a good sod is established.

3.03 MAINTENANCE AND PROVISIONAL ACCEPTANCE

- A. The Contractor shall keep all seeded areas watered, lawn areas mowed and in good condition, reseeding all seeded areas if and when necessary until a good, healthy, uniform growth is established over the entire area seeded and shall maintain all seeded areas in an approved condition until provisional acceptance.
- B. The City's Project Manager will inspect all work for provisional acceptance upon the written request of the Contractor received at least ten days before the anticipated date of inspection.
- C. A satisfactory stand will be defined as a section of turf of 10,000 square feet or larger that has:
 - 1. No bare spots larger than three square feet.
 - 2. No more than ten percent of total area with bare spots larger than one square foot.
 - 3. Not more than fifteen percent of total area with bare spots larger than 6-in square.
- D. The inspection by the City's Project Manager will determine whether additional seeding shall be conducted in any area.
- E. After all necessary corrective work and clean-up has been completed, the City's Project Manager will certify in writing the provisional acceptance of the seeded areas.

3.04 GUARANTEE PERIOD AND FINAL ACCEPTANCE

- A. All seeded areas shall be guaranteed by the Contractor for not less than one full year from the time of acceptance.
- B. At the end of the guarantee period, inspection will be made by the City's Project Manager upon written request submitted by the Contractor at least ten days before the anticipated date. Seeded areas not demonstrating satisfactory stands as outlined above, as determined by the City's Project Manager, shall be renovated, reseeded and maintained, meeting all requirements as specified herein.
- C. After all necessary corrective work has been completed, the City's Project Manager shall certify in writing the final acceptance of the seeded areas.

END OF SECTION

SECTION 02901

MISCELLANEOUS WORK AND CLEANUP

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required to do the miscellaneous work not specified in other sections, but obviously necessary for the proper completion of the work as shown on the Drawings.
- B. When applicable, the Contractor shall perform the work in accordance with other sections of this Specification. When no applicable specification exists, the Contractor shall perform the work in accordance with the best modern practice and/or as directed by the City's Project Manager.
- C. The work of this Section includes, but is not limited to, the following:
 - 1. Crossing and Relocating Existing Utilities
 - 2. Restoring of Driveways, Fences and Curbing
 - 3. Cleaning Up
 - 4. Incidental Work
 - 5. Restoring Easements and Rights-of-Way

1.02 CROSSING AND RELOCATING EXISTING UTILITIES

- A. This item includes any extra work required in crossing culverts, water courses including streams and drainage ditches, drains, gas mains, water mains and water services and other utilities. This work shall include, but is not limited to, the following: bracing, hand excavation and backfill (except screened gravel) and any other work required for crossing the utility or obstruction not included for payment in other items of this specification. Notification of Utility Companies shall be as specified in the General Provisions and Requirements section.
- B. In locations where existing utilities cannot be crossed without interfering with the construction of the work as shown on the Drawings, the Contractor shall remove and relocate the utility as directed by the City's Project Manager or cooperate with the Utility Companies concerned if they relocate their own utility.
- C. At pipe crossings and where designated by the City's Project Manager, the Contractor shall furnish and place crushed stone bedding so that the existing utility or pipe is firmly supported for its entire exposed length. The bedding shall extend to the mid-diameter of the pipe crossed.

1.03 RESTORING OF DRIVEWAYS AND FENCES

- A. Existing public and private driveways disturbed by the sidewalk construction shall be replaced. Paved drives shall be repaved to the limits and thicknesses existing prior to construction, or as shown on the Drawings, whichever is greater. Gravel dirt roads and drives shall be replaced and regraded.

- B. Fences in the vicinity of the work shall be protected from damage under this item. If damaged, fences shall be replaced in condition equal to that prior to being damaged and the work shall be satisfactory to the City's Project Manager.

1.04 CLEANING UP

- A. The Contractor shall remove all construction material, excess excavation, buildings, equipment and other debris remaining on the job as a result of construction operations and shall restore the site of the work to a neat and orderly condition.

1.05 INCIDENTAL WORK

- A. Do all incidental work not otherwise specified, but obviously necessary to the proper completion of the Contract as specified and as shown on the Drawings.

1.06 RESTORING THE EASEMENTS AND RIGHTS-OF-WAY

- A. Portions of the work are within easements through private property. The Contractor shall be responsible for all damage to private property due to his/her operations. He/She shall protect from injury all walls, signs, mailboxes, fences, cultivated shrubbery and vegetables, fruit trees, pavement, underground facilities, such as water pipes, or other utilities which may be encountered along the easement. If removal and replacement are required, it shall be done in a workmanlike manner so that replacement is equivalent to that which existed prior to construction.
- B. Existing lawn and sod surfaces damaged by construction in easements shall be replaced. The Contractor may cut and replace the lawn and sod, or he/she may restore the areas with an equivalent depth and quality of loam, seeded and fertilized as specified in Section 02490. These areas shall be maintained and reseeded, if necessary, until all work under this Contract has been completed and accepted. Any additional work required to restore easements to their original condition shall be performed by the Contractor.

PART 2: PRODUCTS (NOT USED)

PART 3: EXECUTION (NOT USED)

END OF SECTION

City of Bryan
Record of Excavation

Instructions: This record must be prepared for each excavation in a readable, descriptive, and accurate manner. All necessary signatures must be present and approved prior to commencement of work. This record must be retained for (3) years.

Division: _____ Date of Excavation: _____

Period that the Excavation is open: (dates) _____

Specific Location: _____

Purpose: _____

Class of soil determined to be: (check one) ☐ A ☐ B ☐ C
(See Appendix A to Subpart P)

Soil test used: _____

Visual: ☐ Layered ☐ Cohesive ☐ Granular ☐ Gravel ☐ Utilities
☐ Water drains from sides or bottom

Manual: ☐ Plasticity ☐ Dry Strength ☐ Thumb Penetration

- | | | |
|--|------------------------------|-----------------------------|
| 1. All public utility systems notified? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Received permit to dig before digging? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Time: _____ Date: _____ | | |
| Person: _____ | | |
| 3. Hazardous atmosphere tested? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Constructed means of egress from excavation? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. Controlled exposure to vehicle traffic? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 6. Controlled exposure to falling loads? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 7. Warning system for mobile equipment? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 8. Determined emergency rescue equipment needed and available? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 9. Prepared for hazards of water accumulation? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 10. Verified stability of adjacent structure? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 11. Constructed protection from loose rock and soil daily | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 12. Scheduled a worksite inspection plan? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 13. Prepared for fall protection? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Excavation Diagram: (Include length, width, depth)

Diagram / Explain type of excavation protection: (Be specific and note distances)

Competent Person in Charge of Excavation:

Signature

Date

POLICY

UTILITY INSTALLATION NOTIFICATION

It is the policy of the City of Bryan Public Works Services Department and its Divisions that all city work forces and/or city contractors performing work involving the installation of underground utilities provide adequate notification to utility companies prior to the commencement of any excavation activity.

Notification of all utility companies shall occur at least 2 Working Days in advance of the planned excavation activity in accordance with Chapter 251 of the State of Texas Utilities Code, Title 5. A record of the notification time, date, and person contacted shall be made and retained for the City of Bryan's records. City work forces under the direction of the Director of Public Works, shall forward a copy of this notification record to the Public Works Services Department's office. Contractors performing work under the direction of the Engineering Division shall forward a copy of the notification record to the City Engineer's office so that it may be filed in the Engineering Division's files. A form entitled "Utility Installation Notification Check-Off List" shall be used to maintain a record of notification activities.

If a utility company that has been duly notified fails to respond to a request for locating their underground facilities within the prescribed period, City of Bryan work forces and/or contractors are advised that they must notify the utility company and/or companies that work will commence on the planned underground excavation within 1 Working Day. It is the responsibility of the various utilities to respond to a request that its lines be located.

In no event should a city work force and/or contractor delay its work activities for a period exceeding 3 Working Days. If an underground utility company has not responded within the prescribed 3 Working Days, city work forces and/or its contractors are advised to commence the underground excavation activity. After the above described notification period has expired, all responsibility for underground utility breaks and/or ruptures become the responsibility of the owning utility company.

The following procedure will be followed when an emergency excavation of underground facilities is required. If the emergency condition will permit notification time, city work forces and/or contractors shall notify all utility companies that an emergency condition exists that may involve underground facilities owned by the utility company. The nature, location and commencement time of the planned excavation work necessary to resolve the emergency condition will be communicated to the utility companies. The utility company or companies shall advise the agency conducting the emergency excavation of the time necessary for them to respond to a location request. City work forces and/or contractors (agencies making emergency excavation) shall not be required to delay emergency repairs for a period exceeding the time to respond indicated by the utility company or companies. In the event that the emergency condition does not provide city work forces and/or contractors time for notification, emergency work will be completed and any damage to underground facilities will be reported to the owning utility company immediately following completion of the emergency work activity. Damage information reported to the utility company involved shall include the type of damage, location, time that the damage occurred, name of city department and/or contractor along with address and telephone number. All damage to facilities resulting from an emergency condition that did not allow notification time for underground locations will be considered the responsibility of the owning utility company.

**UTILITY INSTALLATION NOTIFICATION
CHECK-OFF LIST**

CONTRACTOR _____

PROJECT NO./SUBDIVISION _____

UTILITY	DATE/TIME UTILITY CALLED	DATE/TIME UTILITY RESPONDED	NAME OF UTILITY CONTACT
DIG-TESS			
Verizon			
C.O.B. Engineering Dept.			
C.O.B. Water Services			
BTU			
Cox Cablevision			
TXU Electric & Gas			

Miscellaneous: _____

TELEPHONE NUMBERS FOR LOCATION OF CABLES & LINES

DIG-TESS	1-800-344-8377
AT&T	1-800-252-1133
Southwestern Gas Pipeline	596-2083
Sprint	1-800-521-0579
Bryan Woodbine Gathering/BWOC	778-8046 or 776-0285
Wickson Crk. Spec. Utility District	589-3030
Cox Cablevision	846-2229
Exxon Pipeline Company	713-656-3315
F & B Gathering	409-690-5777
TXU Electric & Gas	1-800-692-4344
Southwestern Bell	1-800-669-8344
General Telephone	1-800-344-8377

TX030043

TX030043

(2/25/2005)

WAGE SCALE

As required by the Department of Labor in Washington, D.C., investigations have been made to determine the prevailing wage rates for the classes of labor expected to be involved in the various classes of labor on this project.

PREVAILING WAGE RATES IN THE LOCALITY OF THIS PROJECT FOR LABORERS, WORKMEN AND MECHANICS

CRAFT	BASIC HOURLY RATES
Air Tool Operator	\$16.00
Asphalt Distributor Operator	12.09
Asphalt Paving Machine Operator	11.82
Asphalt Raker	9.96
Asphalt Shoveler	10.56
Broom or Sweeper Operator	9.74
Bulldozer Operator	11.04
Carpenter	12.25
Concrete Finisher (Paving)	10.53
Concrete Finisher (Structures)	10.95
Concrete Paving Curbing Machine Operator	14.00
Concrete Paving Finishing Machine Operator	12.00
Concrete Rubber	10.88
Crane, Clamshell, Backhoe, Derrick	
Dragline, Shovel Operator	13.66
Electrician	24.11
Flagger	9.49
Form Builder/Setter (Structures)	10.88
Form Setter (Paving and Curb)	9.89
Foundation Drill Operator (Truck Mounted)	15.00
Front End Loader Operator	11.36
Laborer - Common	9.34
Laborer - Utility	10.12
Mechanic	14.74
Mixer Operator (Concrete Paving)	15.25
Mixer Operator	10.83
Motor Grader Operator (Fine Grade)	15.26
Motor Grader Operator (Rough Grade)	12.96
Oiler	14.71
Painter - Structures	11.00
Pavement Marking Machine Operator	11.52
Pipe Layer	10.49
Planer Operator	17.45
Reinforcing Steel Setter (Paving)	15.50
Reinforcing Steel Setter (Structure)	14.00

WAGE SCALE**PAGE TWO**

CRAFT	BASIC HOURLY RATES
Roller Operator, Pneumatic (Self-Propelled)	9.34
Roller Operator, Steel Wheel Plant-Mix Pavement	10.24
Roller Operator, Steel Wheel (Other-Flat Wheel or Tamping)	9.60
Scraper Operator	9.93
Servicer	11.41
Sign Installer (PGM)	14.85
Slip Form Machine Operator	15.17
Spreader Box Operator	10.39
Structural Steel Worker	13.41
Tractor Operator (Crawler Type)	11.10
Traveling Mixer Operator	10.04
Trenching Machine Operator, Heavy	14.22
Truck Driver - Tandem Axle Semi-Trailer	10.95
Truck Driver - Lowboy/Float	15.30
Truck Driver - Single Axle - Heavy	11.88
Truck Driver - Single Axle- Light	9.98
Wagon Drill, Boring Machine, Post Hole Driller Operator	14.65
Welder	14.26
Work Zone Barricade Servicer	11.15



SALES TAX EXEMPTION PERMIT

This contract is issued by an organization which qualifies for exemption pursuant to the provisions of Article 20.04 (F) of the Texas Limited Sales, Excise and Use Tax Act.

The Contractor performing this contract may purchase, rent or lease all materials, supplies, equipment used or consumed in the performance of this contract by issuing to his supplier an exemption certificate in lieu of the tax, said exemption certificate complying with State Comptroller's ruling #95-0.07. Any such exemption certificate issued by the Contractor in lieu of the tax shall be subject to the provisions of the State Comptroller's ruling #95-0.09 as amended to be effective October 2, 1968.

CITY OF BRYAN
GENERAL PROVISIONS AND REQUIREMENTS

I N D E X

GENERAL PROVISIONS AND REQUIREMENTS

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- 1.2 Abbreviations**
- 1.3 Advertisement**
- 1.4 Bidder**
- 1.5 City**
- 1.6 City Attorney**
- 1.7 City Council**
- 1.8 City Engineer**
- 1.9 City Manager**
- 1.10 City Secretary**
- 1.11 Contract**
- 1.12 Contractor**
- 1.13 Contract Bond**
- 1.14 Inspector**
- 1.15 Mayor**
- 1.16 Plans**
- 1.17 Proposal**
- 1.18 Proposal Guarantee**
- 1.19 Right-of-way**
- 1.20 Special provisions**
- 1.21 Specifications**
- 1.22 Superintendent**
- 1.23 Surety**
- 1.24 The work**
- 1.25 Working day**
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- 2.2 Quantities in Proposal Form**
- 2.3 Examination of Plans, Specifications & Site of the Work**
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- 2.5 Preparation of Proposal**
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- 9.7 Guarantee of Work**

ITEM 1 - DEFINITION OF TERMS

- 1.1 **DEFINITION OF TERMS:** Wherever the words, forms or phrases defined herein or pronouns used in their place occur in these specifications, in the contract, in the bonds, in the advertisements, or any other document or instrument herein contemplated, or to which these specifications apply or may apply, the intent and meaning shall be interpreted as follows:
- 1.2 **ABBREVIATIONS:** Whenever the abbreviations defined herein occur on the Plans, in the specifications, contract, bonds, advertisement, proposal, or in any other document or instrument herein contemplated or to which the specifications apply or may apply, the intent and meaning shall be as follows:
- 1.3 **ADVERTISEMENT:** All of the legal publications pertaining to the work contemplated or under contract.
- 1.4 **BIDDER:** Any person, persons, partnership, company, firm, association or corporation acting directly or through a duly authorized representative submitting a proposal for the work contemplated.
- 1.5 **CITY:** The City of Bryan, Texas, a Municipal Corporation, party of the first part, acting by and through (a) its governing body, or (b) its City Manager, each of whom is required by Charter to perform specific duties. Responsibility for final enforcement of contracts involving the City of Bryan is by Charter vested in the City Manager.
- 1.6 **CITY ATTORNEY:** The City Attorney of the City of Bryan, Texas or his duly authorized assistants or agents.
- 1.7 **CITY COUNCIL:** The Council of the City of Bryan, Texas.
- 1.8 **CITY ENGINEER:** The City Engineer of the City of Bryan, Texas or duly authorized assistants or agents.
- 1.9 **CITY MANAGER:** The Manager of the City of Bryan, Texas.
- 1.10 **CITY SECRETARY:** The City Secretary of the City of Bryan, Texas or his duly authorized assistants or agents.
- 1.11 **CONTRACT:** The written agreement covering the performance of the work. The contract includes the advertisement, proposal, specifications, including special provisions, Plans or working drawings and any supplemental changes or agreements pertaining to the work materials thereof, and bonds.
- 1.12 **CONTRACTOR:** The person, persons, partnership, company, firm, association or corporation entering into contract for the execution of the work, acting directly or through a duly authorized representative, the party of the second part.
- 1.13 **CONTRACT BOND:** The security furnished by the Contractor and Surety as a guarantee on the part of the Contractor to execute the work in accordance with the terms of the contract.

- 1.14 INSPECTOR:** The authorized representative of the City Engineer assigned to supervise or inspect any or all parts of the work and the materials to be used therein.
- 1.15 MAYOR:** The Mayor of the City of Bryan, Texas.
- 1.16 PLANS:** All drawings pertaining to the contract and made a part thereof, including such supplementary drawings or addenda as the City Engineer may issue in order to clarify other drawings, or for the purpose of showing changes in the work hereinafter authorized, or for showing details not shown thereon.
- 1.17 PROPOSAL:** The written statement duly filed with the Purchasing Manager by the person, persons, partnership, company, firm, association, or corporation proposing to do the work contemplated, including the approved form on which the formal bids for the work are to be prepared.
- 1.18 PROPOSAL GUARANTEE:** The security designated in the advertisement and proposal, to be furnished by each bidder as a guarantee of good faith to enter into a contract with the City and execute the required bonds for the work contemplated after the work is awarded him.
- 1.19 RIGHT-OF-WAY:** The land provided by the City upon which to construct the proposed work.
- 1.20 SPECIAL PROVISIONS:** The special clauses setting forth the conditions or requirements peculiar to the specific project involved, supplementing the standard specifications, and taking precedence over any conditions or requirements of the standard specifications with which they are in conflict.
- 1.21 SPECIFICATIONS:** The directions, provisions, and requirements contained herein or in a special specification, supplemented by such "Special Provisions" and "Supplemental Agreements" as may be issued or made pertaining to the method and manner of performing the work or to quantities and qualities of materials to be furnished under the contract. Where the phrases "Or directed by the City Engineer", "Ordered by the City Engineer", or "To the satisfaction of the City Engineer" occur, it is to be understood that the directions, orders, or instructions to which they relate are within the limitations of the proposal and specifications. "Special Provisions" will cover work appertaining to a particular project and included in the proposal but not covered by the specifications and will govern and take precedence over specifications wherever in conflict therewith. "Supplemental Agreements" are written agreements entered into between the Contractor and the City are approved by the Surety, covering alterations and changes in Plans which are necessary to the proper completion of the work. Reference to standard specifications of Texas Department of Transportation (TxDOT), American Standard of Testing Materials (ASTM) and other organizations shall be interpreted to mean the latest published edition as of the date proposals are opened for this project.
- 1.22 SUPERINTENDENT:** The authorized representative of the Contractor.

- 1.23 SURETY:** The corporate body which is bound with the Contractor as a guarantee of good faith on the part of the Contractor to execute the work in strict accordance with the Plans, specifications and terms of the contract.
- 1.24 THE WORK:** All work, including the furnishing of labor, materials, tools, equipment, and incidentals, to be performed by the Contractor under the terms of the contract.
- 1.25 WORKING DAY:** A working day is defined as a calendar day, not including Saturdays, Sundays or legal holidays in which weather or other conditions not under the control of the Contractor will permit the performance of the principal unit of work underway for a continuous period of not less than seven (7) hours between 7 a.m. and 6 p.m. Work on Saturdays may be allowed upon approval by the City Engineer. If allowed, a working day will be charged.
- 1.26 CALENDAR DAY:** A calendar day includes all 7 days of the week, excluding legal holidays, under which the performance of the principal unit of work shall be performed between the hours of 7 a.m and 6 p.m. A calendar day will be charged regardless of weather or other conditions not under the control of the Contractor, unless the City Engineer approves, in writing, a suspension of time.

ABBREVIATIONS

A.A.S.H.T.O.	American Association of State Highway and Transportation Officials	Conc.	Concrete
A.S.T.M.	American Society for Testing and Materials	Diam.	Diameter
		Cond.	Conduit
		Corr.	Corrugated
Asph.	Asphalt	Culv.	Culvert
Ave.	Avenue	Dr.	Driveway
Blvd.	Boulevard	Elev.	Elevation
C.I.	Cast Iron	F.	Fahrenheit
C.L.	Center Line	Ft. or '	Foot or Feet
C.O.	Clean Out	Gal.	Gallon
Lb.	Pound	In. or "	Inch or Inches
M.H.	Manhole	Lin.	Linear
Max.	Maximum	R.O.W.	Right-of-Way
Min.	Minimum	Sq.	Square
Mono.	Monolithic	Std.	Standard
No.	Number	St.	Street
%	Percent	Str.	Strength
P.S.I.	Pounds per Square Inch	Vol.	Volume
R	Radius	Yd.	Yard
Reinf.	Reinforced	Cu.	Cubic

Table A

ITEM 2 - INSTRUCTIONS TO BIDDERS

2.1 PROPOSAL FORM

The City will furnish bidders with proposal forms, which will include the following:

- Project Data - Describes general location and work to be performed including any special concerns.
- Bid Proposal - An itemized list of work to be performed, materials to be furnished and the time the work is to be completed.

2.2 QUANTITIES IN PROPOSAL FORM

The quantities of the work and materials set forth in the proposal form or on the Plans approximately represent the work to be performed and materials to be furnished, and are for the purpose of comparing the bids on a uniform basis. Payment will be made by the City to the Contractor only for the actual quantities of work performed or materials furnished in accordance with the Plans and specifications, and it is understood that the quantities may be increased or decreased as hereinafter provided, without in any way invalidating the bid prices. Any item of work not covered in the proposal will not be paid for directly, but shall be considered as subsidiary to a regular bid item.

2.3 EXAMINATION OF PLANS, SPECIFICATIONS AND SITE OF THE WORK

Bidders are advised that the Plans, specifications, and other documents on file with the City Engineer shall constitute all the information, which the City will furnish. Bidders are required, prior to submitting any proposal, to read the specifications, proposal, contract, and bond forms carefully, to visit the site of the work, to examine carefully local conditions, to inform themselves by their independent research, tests, and investigations of the difficulties to be encountered and judge for themselves of the accessibility of the work and all attending circumstances affecting the cost of doing the work or time required for its completion, and obtain all information required to make an intelligent proposal. No information given by the City or any official thereof, other than that shown on the Plans and contained in the specifications, proposals, and other documents, shall be binding upon the City. Bidders shall rely exclusively upon their own estimates, investigations, tests and other data which are necessary for full and complete information upon which the proposal may be based. It is mutually agreed that submission of a proposal is evidence that the bidder has made the examination, investigations, and tests required herein.

2.4 BIDDER QUALIFICATIONS

Bidders who have not previously had a contract with the City of Bryan must furnish sufficient written evidence that single bonafide contracts, in excess of two-thirds (2/3) of the face amount of this bid, have been successfully and satisfactorily completed on work of a similar nature. This evidence shall be furnished on a statement of bidder's qualifications included with the bid, and shall show job locations, type of projects, contract amounts and dates completed. This information must also be furnished for any proposed subcontractors. Failure to submit this evidence shall be just cause for

disqualification of the bid. The successful Bidder, at the discretion of the City Engineer, may be required to furnish a complete financial statement prepared and certified to by a Certified Public Accountant.

2.5 PREPARATION OF PROPOSAL

The Bidder shall submit his proposal on the forms furnished by the City. All blank spaces in the form shall be correctly filled in and the Bidder shall state the prices numerically, written in ink or typed, for which he proposes to do the work contemplated or furnish the materials required. Such prices shall be written or typed legibly. The numerical unit prices shall govern over all other numbers submitted on the proposal. If proposal is submitted by an individual, his name must be signed by him or his duly authorized agent. If the proposal is submitted by a firm, association or partnership, the name and address of each member must be given and the proposal signed by a member of the firm, association, or partnership, or person duly authorized. If proposal is submitted by a company or corporation, the company or corporate name and business address must be given, and the proposal signed by an official or duly authorized agent, Powers of Attorney, authorizing agents, or others to sign proposals must be properly certified and must be in writing and submitted with the proposal.

If the Bidder/Contractor is a corporation, the original seal of corporation must be affixed to the bid bond, payment bond, performance bond and contract. If these documents are presented without the corporate seal, bidder/contractor must present a certificate of good standing from the Texas Secretary of State and must also present a separate resolution of the corporation's directors for each document stating that the individual whose signature appears on the document was authorized by directors to sign it on behalf of the corporation.

All addendums shall be acknowledged on the bid proposal; failure to do so will result in an automatic disqualification of the bid.

2.6 IRREGULAR PROPOSALS

Proposals will be considered irregular if they show any omissions, alterations of form, additions, or conditions not called for, unauthorized alternate bids, or irregularities of any kind. However, the City reserves the right to waive any irregularities and to make the award in the best interests of the City.

2.7 PROPOSAL GUARANTY

No proposal will be considered unless it is accompanied by an acceptable Cashier's Check or acceptable Bidder's Bond, payable unconditionally to the City of Bryan, Texas. The cashier's check or bidder's bond shall be in the amount of, not less than, that shown in the Notice to Bidders. All bids shall remain subject to acceptance for 60 days after the day of the bid opening, but the City may, at the City's sole discretion, release any bid and return the bid security before that date. The proposal guaranty is required by the City as evidence of good faith and as a guarantee that if awarded the contract the Bidder will execute the contract and furnish the required bonds within ten (10) days after the receipt of acceptance.

2.8 FILING OF PROPOSAL

No proposal will be considered unless it is filed with the Purchasing Manager's office in Bryan, Texas within the time limit for receiving proposals as stated in the advertisement. Each proposal shall be in a sealed envelope, plainly marked with the word, "Proposal", and the name or description of the project as designated in the Notice to Bidders. The proposal shall include the Proposal Form and Bonds. Statement of Contractor and References may also be submitted as part of the proposal.

2.09 WITHDRAWING PROPOSALS:

A Bidder may withdraw his proposal provided his request in writing to do so is in the hands of the officials indicated in the Notice to Bidders by the time set for opening of proposals. A Bidder may change the unit prices in his proposal provided his request to do so is submitted in writing and is in the hands of the Purchasing Manager prior to the time set for opening of proposals. Requests by telephone or telegraph for changes in bid prices or for withdrawal of proposals will not be considered.

2.10 OPENING PROPOSALS

The proposals filed with the Purchasing Manager will be opened and publicly read aloud as provided for in the Notice to Bidders, and shall thereafter remain on file with the Purchasing Manager. No contract will be entered into based on such proposals until after at least two days have elapsed. Bidders or their agents are invited to be present.

2.11 DISQUALIFICATION OF BIDDER:

Bidders may be disqualified and their proposal not considered for any of the following specific reasons:

- (a) Reason for believing collusion exists among the Bidders.
- (b) Reasonable grounds for believing that any Bidder is interested in more than one proposal for the work contemplated.
- (c) The Bidder being interested in any litigation against the City.
- (d) The Bidder being in arrears on any existing contract or having defaulted on a previous contract.
- (e) Lack of competency as revealed by the financial statement, experience and equipment, questionnaires, etc.
- (f) Uncompleted work that in the judgment of the City will prevent or hinder the prompt completion of additional work if awarded.
- (g) Proposals in which prices are obviously unbalanced.
- (h) The City of Bryan is adopting the written criteria for this project that Contractors with two (2) trench failure accidents including one (1) death resulting from trench failure in the last five (5) years will be grounds to disqualify bids. This disqualification is not automatic as the City reserves the right to study the corrective action and present preventative measure implied by Contractors who exceed these criteria.

ITEM 3 - AWARD AND EXECUTION OF CONTRACT

3.1 CONSIDERATION OF BIDS

After proposals are opened, the proposals will be tabulated for comparison on the basis of the bid prices and quantities shown in the proposal. The City of Bryan reserves the right to accept or reject any or all bids, to waive any informalities and technicalities, to accept the offer considered most advantageous **in order to obtain the best value for the City.** Causes for rejection of a bid may include but shall not be limited to the bidder's current violation of any City ordinance, the bidder's current inability to satisfactorily perform the work or service, or the bidder's previous failure to properly and timely perform its obligations under a contract with the City. Bidders may be disqualified and rejection of proposals may be recommended for any (but not limited to) of the following causes: 1) Failure to use the proposal form furnished by the City; 2) Lack of signature by an authorized representative on the proposal form; 3) Failure to properly complete the proposal; 4) Evidence of collusion among proposers; 5) Omission of uncertified personal or company check as a proposal guarantee (**if Bid Bond required**); or 7) Unauthorized alteration of bid form. City reserved the right to waive any minor informality or irregularity.

All bidders are hereby notified that the City of Bryan shall consider all factors it believes to be relevant in selecting the offer that provides the best value for the City including, but not limited to the purchase price, the proximity of the bidder as it relates to the ability to perform the contract for the City of Bryan, the delivery date, the reputation of the bidder and the bidder's goods or services, the quality of the bidder's goods or services, the bidder's past performance under contracts with the City of Bryan, and the bidder's compliance with City ordinances. The City of Bryan may conduct reference checks as needed to evaluate bids. The Contractor will be required to submit a list of 6 references with each bid proposal. The City reserves the right to contact other companies or individuals that can provide information to the City that will assist the City in evaluating the capability of the bidder.

The City of Bryan, Texas is committed to obtaining its goods, products and services at the lowest price possible which benefits all the citizens of Bryan. Therefore, in order to accomplish this objective/goal, it is not the intention of the City neither to exclude particular vendors or manufacturers nor to create restrictive situations in its request for bids and proposals. Any manufacturer's names, trade names, brand names, catalog numbers, technical data, etc. used in the specifications are there for the sole purpose of establishing and describing general performance, quality levels, type and dimensions and such references are not intended to be restrictive. Alternate bids on similar or comparable products and/or services of any manufacturer or vendor equal to the products and/or services described in the specifications are invited and will be given careful consideration provided the alternate will accomplish the same task. The City of Bryan shall be the sole judge on whether the alternate product and/or service is similar to, equal to and in compliance with that specified. The decision of the City shall be final.

"In literal compliance" in reference to standards and specifications shall mean the meeting or exceedance of all or nearly all of the said standards and specifications. If the City determines that standards and specifications are in literal compliance where not all standards and specifications have been met or exceeded, the City must base such a determination on its finding that any standards and specifications which have not been met or exceeded do not render the bidder product any less usable for the purpose for which it is intended.

3.2 AWARD OF CONTRACT

The City shall award the bid to obtain the best value to the City. The City's determination of best value determination may be based on a number of factors including but not limited to the following:

- (a) the purchase price, including payment discount terms;
- (b) the reputation of the bidder and of the bidder's goods or services;
- (c) the quality of the bidder's goods or services;
- (d) the extent to which the goods or services meet the City's needs;
- (e) the bidder's past relationship with the City;
- (f) the impact on the ability of the City to comply with laws and rules relating to contracting with historically underutilized businesses and nonprofit organizations employing persons with disabilities;
- (g) the total long-term cost to the City to acquire the bidder's goods or services; and
- (h) any relevant criteria specifically listed in this bid document.

The City prefers to award the entire contract to a single Contractor; although, the City reserves the right to award a primary contract and a secondary contract in an effort to secure a back-up contractor to be used in emergency situations in the event the primary contractor is unable to respond as needed. The City reserves the right to withhold the award of the contract for a period of 60 calendar days from date of opening proposals. In no case will contract be awarded until at least two days shall have elapsed from time of opening proposals. The City of Bryan reserves the right to award the bid in order to obtain the best value for the City.

3.3 RETURN OF PROPOSAL GUARANTY

As soon as proposal prices have been tabulated for comparison of bids, the City may, at its discretion, return the proposal guaranties accompanying the proposals which, in its judgment, would not be considered in the award; all other proposal guaranties will be retained by the City until the required contract and bonds have been executed, after which they will be returned. No proposal guaranties will be returned until at least two days shall have elapsed from time of opening proposals.

3.4 PERFORMANCE and PAYMENT BONDS

Within ten (10) days after written notification of the award of the contract the Contractor shall file with the City a good and sufficient performance bond in an amount equal to one hundred percent of the total amount of the contract, as evidenced by the proposal, guaranteeing the full and faithful execution of the work and performance of the contract.

When the contract amount is \$25,000 or more, a performance and a payment bond in an amount of not less than one hundred percent (100%) of the contract price, conditioned upon faithful performance of the contract in accordance with the plans, specifications and contract documents and payment to all persons supplying labor and materials, and for the protection of the City and all other persons against damage by reason of negligence of the Contractor, or improper execution of the work, or the use of inferior materials shall be executed by the successful bidder and shall accompany the signed contract. Bonds shall remain in full force and effect for one year after written notice of acceptance of the completed work is received from the City.

No sureties will be accepted by the City who are now in default or delinquent on any bonds or who are interested in any litigation against the City. All bonds shall be made on forms furnished by the City, and shall be executed by an approved surety company authorized to do business in the State of Texas and acceptable to the City. Each bond shall be executed by the Contractor and the sureties.

Should any surety on the contract be determined unsatisfactory at any time by the City Council, notice will be given the Contractor to that effect and the Contractor shall immediately provide a new surety satisfactory to the City. No payment will be made under the contract until the new surety or sureties, as required, have been accepted by the City.

No Performance and Payment bonds shall be required on any City contract less than \$25,000.00. In the event that these bonds are not furnished by the Contractor, only one estimate (final) will be paid and that shall be upon completion of the project.

3.5 EXECUTION OF CONTRACT

The person or persons, partnership, company, firm, association, or corporation to whom a contract is awarded shall within ten (10) days after such award sign the necessary agreements entering into the required contract with the City. No contract shall be binding on the City until it has been attested by the City Secretary, approved as to form by the City Attorney, executed for the City by the designated City representative, and delivered to the Contractor.

If the Bidder/Contractor is a corporation, the original seal of corporation must be affixed to the bid bond, payment bond, performance bond and contract. If these documents are presented without the corporate seal, bidder/contractor must present a certificate of good standing from the Texas Secretary of State and must also present a separate resolution of the corporation's directors for each document stating that the individual whose signature appears on the document was authorized by directors to sign it on behalf of the corporation.

3.6 FAILURE TO EXECUTE CONTRACT

The failure of the bidder to execute the required bonds or to sign the required contract within ten (10) days after contract is awarded shall be considered by the City as an abandonment of his proposal and the City may annul the award. By reason of the uncertainty of the market prices of materials and labor, and it's being impracticable and difficult to determine accurately the amount of damages accruing to the City by reason of

said bidder's failure to execute said bonds and contract within said ten (10) days, the proposal guaranty accompanying the proposal shall be the agreed amount of damages which the City will suffer by reason of such failure on the part of the bidder, and shall thereupon immediately be forfeited to the City. The filing of a proposal will be considered as an acceptance of this provision.

3.7 BEGINNING OF WORK

The Contractor shall not begin work until notified in writing by the City Engineer to do so.

ITEM 4 - SCOPE OF WORK

4.1 INTENT OF PLANS AND SPECIFICATIONS

The intent of the Plans and specifications is to prescribe a complete work or improvement, which the Contractor undertakes to do in full compliance with the Plans, specifications, special provisions, proposal and contract. Unless otherwise provided, the Contractor shall furnish all labor, tools, materials, machinery, equipment, and incidentals necessary for the proper prosecution and completion of the work.

4.2 SPECIAL PROVISIONS

Should any work or conditions which are not covered by these specifications be anticipated on any proposed work, "Special Provisions" for such work will be prepared by the City previous to the time of receiving the bids, and shall be considered as a part of the specifications and contract and complied with by the Contractor.

4.3 INCREASED OR DECREASED QUANTITIES OF WORK

The City reserves the right to alter the quantities of work to be performed by either increasing or decreasing the quantities at any time when it is found necessary, and the Contractor shall perform the work as altered, increased or decreased, at the contract unit prices. Any allowance will not be made for anticipated profits nor shall such changes be considered as waiving or invalidating any conditions or provisions of the Contract and Bond.

4.4 ALTERATION OF PLANS AND SPECIFICATIONS

The City reserves the right to make such changes in the Plans and specifications and in the character of the work as may be necessary or desirable to insure completion in the most satisfactory manner, provided such changes do not materially alter the original Plans and specifications or change the general nature of the work as a whole. Such changes shall not be considered as waiving or invalidating any condition or provision of the contract and bond.

4.5 EXTRA WORK

When any work is necessary to the proper completion of the project for which no prices are provided for in the proposal and contract, the Contractor shall do such work, but only when and as ordered in writing by the City Engineer. Payment for extra work will be made by "Supplemental Agreement" as outlined in Item 9 - Measurement and Payment.

4.6 OPERATION MAINTENANCE CONTROL

The Contractor shall take precaution to prevent the deposition of mud from the construction site on adjoining property, roads, streets and alleys during construction. These shall remain in a clean and usable condition.

For waterline or sewer line construction, the Contractor shall keep adjacent streets and/or alleys in a clean and usable condition as the job progresses. All sedimentation control measures shall be maintained in an effective operating condition during construction. This will prevent removal of sediment and mud from the project by wind or water.

4.7 FINAL CLEANUP

Upon the completion of the work and before acceptance and final payment will be made, the Contractor shall clean and remove from the site of the work all surplus and discarded materials, temporary structures, and debris of every kind. All equipment shall be removed from the job site after completion or acceptance of the construction work. If excavated material is placed on private property, it shall be the Contractor's responsibility to provide the City Engineer with a written statement signed by the property owner stating that the property owner requested the material and is satisfied with the condition in which the property was left. All excavated material containing any oil based products or asphaltic products must be disposed of at a licensed sanitary landfill. All brush that is not burned must be disposed of at a licensed compost facility. The Contractor will be allowed to burn debris in the right of way, provided that he obtains a permit to burn said debris from the City of Bryan Fire Marshall twenty-four (24) hours in advance of any burning. Permits will be issued on a day to day basis only and the Contractor shall be totally responsible for any damage incurred due to burning. No brush, oil- based soil, or asphaltic products will be allowed to be placed on private property. Material is not to be placed in floodplain without prior approval by the City's Floodplain Administrator. The Contractor shall be totally responsible for any damage incurred due to illegal dumping. He shall leave the site of the work in a neat and orderly condition equal to that which originally existed. Surplus and waste materials removed from the site of the work shall be disposed of at a licensed sanitary landfill or as directed by the City Engineer. No payment will be made for this work, its cost being subsidiary to the various bid items.

ITEM 5 - CONTROL OF THE WORK

5.1 AUTHORITY OF THE CITY ENGINEER

All work shall be performed under the inspection of the City Engineer in a workmanlike manner and to the satisfaction of the City Engineer and in accordance with the contract, Plans and specifications. The City Engineer shall decide all questions which arise as to the quality and acceptability of materials furnished, work performed, rate of progress of the work, interpretation of the Plans and specifications, acceptable fulfillment of the contract, compensations, mutual rights between Contractors under these specifications, and suspension of the work. The City Engineer shall determine the amount and quality of the work performed and materials furnished, and those decisions and estimates shall be final. The City Engineer's estimate of the amount of work done shall be a condition precedent to the right of the Contractor to receive money due him under the contract.

5.2 CONFORMITY WITH PLANS

All work shall conform to the lines, grades, cross-sections, details and dimensions shown on the Plans. Any deviation from the Plans that may be required by the contingencies of construction will be determined and authorized by the City Engineer. All shop or fabrication details shall be furnished by the Contractor and checked and approved by the City Engineer.

5.3 EXISTING STRUCTURES

The Plans show the locations of all known surface and subsurface structures, however, the location of many gas mains, water mains, conduits, sewers, etc. is unknown, and the City assumes no responsibility for failure to show any or all these structures on the Plans or to show them in their exact location. It is mutually agreed such failure will not be considered sufficient basis for claims for additional compensation for extra work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate changes in the lines or grades, or require the building of special work, provisions for which are not made in the Plans and Proposal, in which case, at the decision of the City Engineer, the provisions in these specifications for extra work shall apply.

The Contractor shall exercise caution while working at a location where proposed construction crosses or comes into proximity with an underground telephone cables, gas line, waterline, sewer line or any other utility line. EXTREME CAUTION shall be taken when working around petroleum pipeline or high pressure gas lines.

It shall be the Contractor's responsibility to contact the utility at least two (2) working days (excluding Saturday, Sunday and Holidays) prior to construction and obtain exact location of all underground utility lines and appurtenances where possibility of a conflict exists. Unnecessary damage to utilities or appurtenances within and outside the limits of construction shall be repaired at the Contractor's expense.

It is the Contractor's responsibility to notify and coordinate any repair of utilities required for the proper construction of this project, including utilities owned by the City. The attached Utility Notification Check-off List, included within this contract, shall be filled out and kept on-site during construction.

5.4 COORDINATION OF PLANS, SPECIFICATIONS, PROPOSAL AND SPECIAL PROVISIONS

The Plans, specifications, proposal, special provisions, and all supplementary documents are intended to describe a complete work and are essential parts of the contract. A requirement occurring in any of them is binding. In case of discrepancies, figured dimensions shall govern over scaled dimensions; Plans shall govern over specifications; special provisions shall govern over both General Specifications and Plans; quantities shown on the Plans shall govern over those shown in the Proposal. The Contractor shall not take advantage of any apparent error or omission in the Plans and specifications, and the City Engineer shall be permitted to make such corrections or interpretations as may be deemed necessary for the fulfillment of the intent of the Plans and specifications. In the event the Contractor discovers an apparent error or discrepancy, he shall immediately call this to the attention of the City Engineer.

5.5 COOPERATION OF CONTRACTOR

The Contractor shall give the work the consistent attention necessary to facilitate the progress thereof, and he shall cooperate with the City Engineer, his inspectors, and with other Contractors in every way possible. The Contractor shall provide all facilities to enable the City Engineer and his inspectors to inspect the workmanship and materials entering into the work.

5.6 CONSTRUCTION STAKES

The City Engineer will furnish the Contractor with all grades, lines and measurements necessary for proper prosecution and control of the work. It shall be the responsibility of the Contractor to provide and maintain all construction staking on this project necessary for the proper performance and control of the work. This work is to be performed under the direct supervision of a Registered Public Land Surveyor, licensed in the State of Texas. Certified cut sheets must be provided to the City Engineer before commencing work. All costs associated with surveying shall be subsidiary to the various bid items.

5.7 AUTHORITY AND DUTIES OF INSPECTORS

Inspectors will be authorized to inspect all work done and all materials furnished. In case of any dispute arising between the Contractor and the Inspector as to the materials furnished or the manner of performing the work, the Inspector will have authority to reject materials or suspend work until the question at issue can be referred to and decided by the City Engineer. The Inspector will not, however, be authorized to revoke, alter, enlarge, or release any requirement of these specifications, not to approve or accept any portion of work, nor to issue instructions contrary to the Plans and specifications. He will in no case act as foreman, nor perform other duties for the Contractor, nor interfere with the management of the work.

5.8 PROJECT SAFETY

Where trench depths or other excavations exceed a depth of 5 feet, the Contractor must use protective devices as specified on OSHA Standard 29 CFR Part 1926, Subpart P and appendices thereto. A trench shoring plan in accordance with Vernon's Health and Safety Code Section 756.021 shall be submitted by the Contractor prior to issuance of a work order for this project. All soil for this project shall be classified as type "C" soil.

The "City of Bryan Excavation Policy" is hereby made part of these specifications and shall be adhered to for this project. The "Record of Excavation" form that is to be filled out by the Contractor at the time of excavation is included in this contract. A full copy of this policy is available for review at the City of Bryan City Engineering Division, and/or can be mailed upon request. For additional information about this requirement, contact City of Bryan Risk Management Services at (979) 209-5056.

The Contractor will be required to furnish and erect adequate protective devices (barricades, warning signs, lights, etc.) to ensure safe conditions once construction has begun. Barricades shall be painted in a color that will be visible at night.

The Contractor shall submit a Traffic Control Plan to the City Engineer, which must be approved before the Contractor begins work. The City Engineer reserves the right to change the Traffic Control Plan at anytime.

The Contractor will be held responsible for all damage to the work due to failure of barricades, signs, lights, and watchmen to protect it. Under any and all circumstances signs, barricades, lights, and other traffic control devices shall conform to the requirements of the Texas Manual on Uniform Traffic Control Devices with respect to design, application and maintenance.

5.9 INSPECTION

The Contractor shall furnish the City Engineer with every reasonable facility for ascertaining whether or not the work as performed is in accordance with the requirements and intent of the specifications and contract. Any work shall not be done nor materials used without suitable supervision or inspections.

5.10 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

All work, which has been rejected or condemned, shall be repaired or if it cannot be repaired satisfactorily, it shall be removed and replaced at the Contractor's expense. Defective materials shall be immediately removed from the site of the work. Work done without line and grades having been given, work done beyond the lines or not in conformity with the grades shown on the Plans or as given, save as herein provided, work done without proper inspection, or any extra or unclassified work done without written authority and prior agreement in writing as to prices shall be done at the Contractor's risk, and will be considered unauthorized, and at the option of the City Engineer may not be measured and paid for, and may be ordered removed at the Contractor's expense. Upon failure of the Contractor to repair satisfactorily or to remove and replace, if so directed, rejected, unauthorized or condemned work or materials immediately after receiving notice from the City Engineer, the City Engineer will, after giving written notice to the

Contractor, have the authority to cause defective work to be remedied or removed and replaced, or to cause unauthorized work to be removed and to deduct the cost thereof from any monies due to the Contractor.

5.11 FINAL INSPECTION

The City Engineer will make final inspection of all work included in the contract as soon as practicable after the work is completed and ready for acceptance. If the work is not acceptable to the City Engineer at the time of such inspection, he will inform the Contractor as to the particular defects to be remedied before final acceptance will be made.

5.12 PUNCH LIST INSPECTION

At the request of the Contractor, on or near the date construction has ended, the City shall conduct a punch list inspection to identify additional work to be done, improper or incomplete work to be corrected, or other deficiencies in the work, a list of which shall be provided to the Contractor. If all items on the list are not completed, corrected, or otherwise resolved within 20 calendar days of the date of publication of the list, the City may use the retainage held from the Contractor to complete the items on the list.

5.13 AS-BUILT DRAWINGS

The Contractor shall furnish to the City, one set of clean, red-lined as-built prints showing elevations, depth of bury for all utility lines, any deviations from contract drawings, etc. prior to final acceptance of the project. The cost of providing "As-Built" will be subsidiary to the various bid items.

ITEM 6 - CONTROL OF MATERIALS

6.1 SOURCE OF SUPPLY OF MATERIALS

The materials shall be of the best procurable as required by the Plans, specifications and special provisions. The Contractor shall not start delivery of materials until the City Engineer has approved the source of supply. Only materials conforming to these specifications shall be used in the work. The Contractor shall furnish approved materials from other sources, if for any reason the product from any source at any time before commencement or during the prosecution of the work proves unacceptable. After approval, any material that have become unfit for use will not be permitted in the work.

6.2 SAMPLES AND TESTS OF MATERIALS

Where, in the opinion of the City Engineer or as called for in the specifications, tests of materials are necessary, such tests will be made at the expense of the City unless otherwise provided. The failure of the City to make any tests of materials shall in no way relieve the Contractor of his responsibility of furnishing materials conforming to the specifications. The Contractor shall furnish adequate samples without charge.

The Contractor shall submit to the City Engineer proof (manufacturer's certificates, test reports, mill reports, etc.) that all materials proposed for use in construction of this project meet the appropriate specifications. The City Engineer may require testing or retesting by an acceptable independent testing laboratory of any materials submitted for use in this project. If this testing indicates the materials to be unsatisfactory, the Contractor shall be required to pay for these tests, and supply materials that comply with said specification.

Standard control tests will be made during construction to determine that all materials and construction procedures meet the standards and specifications prescribed. The cost of tests performed on materials that do not comply with specifications shall be deducted from the monthly payments to the Contractor.

The City Engineer reserves the right to have the Contractor submit test reports by an independent testing lab showing construction materials conform to the City of Bryan Standard Specifications or referenced specifications.

6.3 STORAGE OF MATERIALS:

Materials shall be stored so as to insure the preservation of their quality and fitness for the work. When directed by the City Engineer, they shall be placed on wooden platforms or other hard, clean surfaces and not on the ground, and shall be placed under cover when directed. Stored materials shall be placed and located so as to facilitate prompt inspection. If material is stored on private property, the Contractor will provide the City Engineer with written approval of the property owner.

6.4 DEFECTIVE MATERIALS

All materials not conforming to the requirements of these specifications will be rejected and shall be removed immediately from the site of the work unless permitted to remain by the City Engineer. Upon failure on the part of the Contractor to comply with any order of the City Engineer made under the provisions of this item, the City Engineer will have authority to remove and replace defective material and to deduct the cost of removal and replacement from any money due to or become due the Contractor.

6.5 ARRANGEMENT AND CHARGE FOR WATER FURNISHED BY THE CITY

Where the Contractor desires to use City water in connection with any construction work, he shall make complete and satisfactory arrangements with the City for so doing. Where meters are used, the charge for water will be at the regular established rate; where no meters are used, the charge will be as prescribed by ordinance, or where no ordinance applies, payment shall be made on that estimated by the City.

ITEM 7 - LEGAL RELATIONS AND PUBLIC RESPONSIBILITY

7.1 LAWS TO BE OBSERVED

The Contractor shall at all times observe and comply with all Federal and State laws and City Ordinances and regulations, which in any manner affect the conduct of the work, and shall observe and comply with all orders, laws, ordinances and regulations which exist or which may be enacted later by bodies having jurisdiction or authority for such enactment.

No plea of misunderstanding or ignorance thereof will be considered. The Contractor and his sureties shall indemnify and save harmless the City and all its officers, agents and employees against any claims or liability arising from or based on the violation of any such law, ordinance, regulation or order whether by himself or his employees, or sub-contractors.

7.2 PERMITS AND LICENSES

The Contractor shall obtain all permits and licenses, and give all notices necessary and incident to the due and lawful prosecution of the work. All City of Bryan fees for permits will be waived.

7.3 STATE AND CITY SALES TAXES

The Contractor's attention is directed to Texas House Bill 11 (72nd Legislature, 1st C.S.), which amended the Texas Tax Code Section 151.311. This amendment provides that by the Contractor entering into a separate contract, the Contractor will become a seller of materials purchased for the project, which will obviate paying taxes on materials incorporated into the project.

As a seller, the Contractor purchases materials and issues a resale certificate instead of paying the sales tax at the time of purchase. The City, as an exempt entity, will provide the Contractor with an exemption certificate at the time of the "sale" of the materials to the City, thereby precluding the City, and Contractor, from paying the sales tax on the materials.

Services are not tax exempt. The Contractor will be required to pay all appropriate taxes for all services as set forth herein.

For purpose of these Contract Documents, the following definitions are provided for materials and services:

Materials: Materials are those items that are tax exempt and are physically incorporated into the facility constructed for the City. Materials include, but are not limited to, purchased items such as the filters, pumps, valves, pipe, fittings, concrete, asphalt, road-base and sub-base, electrical equipment, building components, etc.

Services: Services are those items that are not tax exempt and are items used by the Contractor but that are not physically incorporated into the City's facility

and/or are items which are consumed by construction. Services include, but are not limited to items, such as supplies, tools, concrete form, scaffolding, temporary storage buildings, the purchase or rental or lease of equipment, skill and labor, etc.

For further information concerning taxes as they related to materials and services, the Contractor shall refer to House Bill 11 and/or contact the Texas Comptroller of Public Accounts, Austin, Texas.

7.4 PATENTED DEVICES, MATERIALS AND PROCESSES

If the Contractor is required or desires to use any design, device, material or process covered by letters patent or copyrighted he shall provide for such use by suitable legal agreement with the patentee or owner. It is mutually agreed and understood that without exception, contract prices shall include all royalties or costs arising from patents, trademarks and copyrights in any way involved in the work. The Contractor and his sureties shall indemnify and save harmless the City from any and all claims for infringement by reason of the use of any such patented design, device, materials or process or any trademark or copyright in connection with the work agreed to be performed under this contract and shall indemnify the City for any cost, expense, or damage which it may be obliged to pay by reason of such infringement at any time during the prosecution of the work or after completion of the work.

7.5 SANITARY PROVISIONS

The Contractor shall establish and enforce among his employees such regulations in regard to cleanliness and disposal of garbage and waste as will tend to prevent the inception and spread of infectious or contagious diseases and to prevent effectively the creation of a nuisance about the work on any property either public or private, and such regulations as are required by the City Engineer shall be put into immediate force and effect by the Contractor. The necessary sanitary conveniences for the use of laborers on the work, properly secluded from public observation, shall be constructed and maintained by the Contractor in such manner and at such points as will be approved by the City Engineer, and their use shall be strictly enforced by the Contractor. All sanitary laws and regulations of the State of Texas and the City of Bryan shall be strictly complied with.

7.6 PUBLIC CONVENIENCE AND SAFETY

Materials stored about the work shall be so placed, and the work shall at all times be so conducted as to cause no greater obstruction to the public than is considered necessary by the City Engineer. The Contractor shall make provisions by bridges or other means at all cross streets, highways, sidewalks, and private driveways for the free passage of pedestrians and vehicles, provided that where bridging is impractical or unnecessary in the opinion of the City Engineer, the Contractor may make arrangements satisfactory to the City Engineer for the diversion of traffic and shall, at his own expense, provide all material and perform all work necessary for the construction and maintenance of roadways and bridges for the diversion of traffic.

The City reserves the right to remedy any neglect on the part of the Contractor as regards the public convenience and safety which may come to its attention, after twenty-four hours notice in writing to the Contractor, save in cases of emergency, when it shall have

the right to remedy any neglect without notice; and in either case, the cost of such work done by the City shall be deducted from monies due or to become due the Contractor. The Contractor shall notify the City Engineer when any street is closed or obstructed and when directed by the City Engineer shall keep any street or streets in condition for unobstructed use by the fire apparatus. Where the Contractor is required to construct temporary bridges or make other arrangements for crossings over ditches or streams, his responsibility for accidents shall include the roadway approaches as well as the structures for such crossings.

The Contractor shall conform to all federal, state and local safety regulations and specifically follow those contained in the City of Bryan Safety policy and procedures manual.

7.7 PRIVILEGES OF CONTRACTOR IN STREETS, ALLEYS AND RIGHT-OF-WAYS

For the performance of the contract, the Contractor will be permitted to occupy such portion of streets or alleys, or other public places or other right-of-ways as provided for in the ordinances of the City, as shown on the Plans or as permitted by the City Engineer. A reasonable amount of tools, materials and equipment for construction purposes may be stored in such space, but not more than is necessary to avoid delays in the construction. Excavation and waste materials shall be piled or stacked in such a way as not to interfere with spaces that may be designated to be left free and unobstructed, and not inconvenience occupants of adjoining property. Other Contractors of the City may, for all purposes required by their contracts, enter upon the work and premises used by the Contractor, and the Contractor shall give to other Contractors of the City all reasonable facilities and assistance for the completion of adjoining work. Any additional grounds desired by the Contractor for his use shall be provided him at his own expense.

7.8 RAILWAY CROSSINGS

Where the work encroaches upon any right-of-way of any railway, the City will secure the necessary easement for the work. Where railway tracks are to be crossed, the Contractor shall observe all the regulations and instructions of the railway company as to methods of doing work, or precautions for safety of property and the public. All negotiations with the railway company, except for right-of-way, shall be made by the Contractor. The railway company shall be notified by the Contractor not less than five days previous to time of his intentions to begin work. The Contractor will not be paid direct compensation for such railway crossing, but shall receive only the compensations as set out in the proposal.

7.9 BARRICADES, LIGHTS AND WATCHMEN

Where the work is carried on in, or adjacent to any street, alley or public place, the Contractor shall at his own cost and expense furnish and erect such barricades, fences, lights, and danger signals, shall provide such watchmen and shall take such other precautionary measures for the protection of persons or property and of the work as are necessary. Barricades shall be painted in a color that will be visible at night. From sunset to sunrise, the Contractor shall furnish and maintain at least one light at each barricade. A sufficient number of barricades shall be erected to keep vehicles from being

driven on or into any work under construction. The Contractor shall furnish watchmen in sufficient number to protect the work.

The Contractor will be held responsible for all damage to the work due to failure of barricades, signs, lights, and watchmen to protect it, and whenever evidence is found of such damage, the City Engineer may order the damaged portion immediately removed and replaced by the Contractor at his own expense. The Contractor's responsibility for the maintenance of barricades, signs and lights, and for providing watchmen, shall not cease until the project shall have been accepted by the City.

Under any and all circumstances, signs, barricades, lights and other traffic control devices shall conform to the requirements of the Texas Manual on Uniform Traffic Control Devices with respect to design, application and maintenance. As required by the City Engineer, the Contractor will submit a traffic control plan. The City Engineer reserves the right to modify the plan at any time.

7.10 USE OF EXPLOSIVES

The use of explosives are prohibited on City Projects.

7.11 PROTECTION AND RESTORATION OF PROPERTY

Where the work passes over or through private property, the City will provide the necessary right-of-way. The Contractor shall not enter upon private property for any purpose without having previously obtained permission from the property owner. The Contractor shall be responsible for the preservation of, and shall use every precaution to prevent damage to, all trees, shrubbery, plants, lawns, fences, culverts, bridges, pavements, driveways, sidewalks, etc., to all water, sewer, and gas lines, to all conduits, to all overhead pole lines, and appurtenances thereof; and to all other public or private property, along or adjacent to the work. The Contractor shall notify the proper representatives of any public utility, corporation, any company or individual, not less than forty-eight hours in advance of any work which might damage or interfere with the operation of their or his property along or adjacent to the work. The Contractor shall be responsible for all damages or injury to property of any character resulting from any act, omission, neglect, or misconduct in the manner of executing the work, or due to his non-execution of the work, or any time due to defective work or materials, and said responsibility shall not be released until the work shall have been completed and accepted.

When and where any direct or indirect damage or injury is done to public or private property on account of any act, omission, neglect or misconduct in the execution of the work or in consequence of the non-execution thereof on the part of the Contractor, he shall restore or have restored at his own expense such property to a condition equal to or better than that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring as may be directed, or he shall make good such damage from injury in a manner acceptable to the owner or the City Engineer. In case of failure on the part of the Contractor to restore such property or make good such damage or injury; the City Engineer may, upon forty-eight (48) hours written notice, under ordinary circumstances and without notice when a nuisance or hazardous condition results, proceed to repair, rebuild, or otherwise restore such property as may be determined

necessary, and the cost thereof will be deducted from any monies due or to become due the Contractor under his contract.

7.12 RESPONSIBILITY FOR DAMAGE CLAIMS (INDEMNIFICATION)

The Contractor shall defend, indemnify and save harmless the City and all its officers, agents (including the Engineer of Record), and employees from all suits, actions, or claims of any character, name and description including attorney's fees, expenses brought for or on account of any injuries or damages received or sustained by any person or persons or property, by or from the said Contractor or his employees or by or in consequence of any negligence in safeguarding the work of through the use of unacceptable materials in constructing the work, or by or on account of any act or omission, neglect or misconduct of the said Contractor, or by or on account of any claims of amounts recovered under the Workmen's Compensation Law or any other law, ordinance, order or decree, and so much of the money due the said Contractor under and by virtue of his contract as shall be considered necessary by the City may be retained for the use of the City, or in case no money is due, his sureties shall be held until suit or suits, action or actions, claim or claims for injury or damages as aforesaid shall have been settled and satisfactory evidence to the effect furnished the City. Contractor shall defend, indemnify and save harmless the City, its officers, agents (including the Engineer of Record), and employees in accordance with this indemnification clause regardless of whether the injury of damage is caused in part by the City, its officers, agents (including the Engineer of Record), or employees.

7.13 PUBLIC UTILITIES AND OTHER PROPERTY TO BE CHANGED

In case it is necessary to change or move the property of any owner or of a public utility, such property shall not be moved or interfered with until ordered to do so by the City Engineer. The right is reserved to the owner of public utilities to enter upon the limits of the contract for the purpose of making such changes or repairs of their property that may be necessary by performance of the contract. The City reserves the right of entering upon the limits of the contract for the purpose of repairing or relaying the sewer and water lines and appurtenances, repairing structures, etc., and making other repairs, changes, or extensions to any City property.

7.14 USE OF A SECTION OR PORTION OF THE WORK

Wherever in the opinion of the City Engineer any section or portion of the work or any structure is in suitable condition, it may be put into use upon the written order of the City Engineer, and such usage shall not be held to be in any way an acceptance of said work or structure or any part thereof or as a waiver of any of the provisions of these specifications or the contract pending final completion and acceptance of the work; all necessary repairs and removals or any section of the work so put into use, due to defective materials or workmanship or to operations of the Contractor shall be performed by the Contractor at his own expense.

7.15 CONTRACTOR'S RESPONSIBILITY FOR THE WORK

Until written acceptance by the City Engineer, as provided for in these specifications, the work shall be under the charge and care of the Contractor, and he shall take every necessary precaution to prevent injury or damage to the work or any part thereof by action of the elements or from any other cause whatsoever, whether arising from the execution or non-execution of the work.

7.16 NO WAIVER OF LEGAL RIGHT

Inspection of any order, measurement, quantity, or certificate by the City Engineer, any order by the City for payment of money, any payment for or acceptance of any work, or any extension or time, or any possession taken by the City, shall not operate as a waiver of any provisions of the Contractor or any power therein reserved to the City of any rights or damages therein provided. Any waiver of any breach of Contract shall not be held to be a waiver of any other or subsequent breach. The City reserves the right to correct any error that may be discovered in any estimate that may have been paid and to adjust the same to meet the requirements of the contract and specifications. The City reserves the right to claim and recover by process of law sums as may be sufficient to correct any error or make good any deficiency in the work resulting from such error, dishonesty or collusion, upon the conclusive proof of collusion or dishonesty by the Contractor or his agents, discovered in the work after the final payment has been made.

7.17 CONTRACTOR'S INSURANCE

The Contractor agrees to maintain, on a primary basis, for the duration of this contract the insurance coverages and limits as described below. The Contractor must deliver to the City a certificate(s) of insurance evidencing that such policies are in full force and effect within 5 business days of notification of the City's intent to award a contract. Failure to meet the insurance requirements and provide the required certificate(s) and any necessary endorsements within five business days may cause the bid to be rejected. The City reserves the right to obtain complete, certified copies of all required insurance policies at any time.

The requirements as to types and limits, as well as the City's review or acceptance of insurance coverage to be maintained by Contractor, is not intended to nor shall in any manner limit or qualify the liabilities and obligations assumed by the Contractor under the Agreement.

WORKERS' COMPENSATION INSURANCE & EMPLOYERS' LIABILITY INSURANCE – Statutory & \$500,000/\$500,000/\$500,000 The Contractor agrees to maintain Worker's Compensation Insurance & Employers Liability. In the event any work is sublet, the Contractor shall require the subcontractor similarly to provide the same coverage and shall himself acquire evidence of such coverage on behalf of the subcontractor. Waiver of subrogation in favor of the City required.

COMMERCIAL GENERAL LIABILITY INSURANCE – Limit of liability not less than \$1,000,000 per occurrence Contractor agrees to maintain a standard ISO version Commercial General Liability occurrence form, or its equivalent providing coverage for, but not limited to, Bodily Injury and Property Damage, Premises/Operations, Products/Completed Operations, Independent Contractors.

BUSINESS AUTOMOBILE LIABILITY INSURANCE – Limit of liability not less than \$1,000,000 per occurrence Contractor agrees to maintain a standard ISO version Business Automobile Liability, or its equivalent, providing coverage for all owned, non-owned and hired automobiles. Should the Contractor not own any automobiles, the business auto liability requirement shall be amended to allow the Contractor to agree to maintain only Hired & Non-Owned Auto Liability. This amended coverage requirement may be satisfied by way of endorsement to the Commercial General Liability, or separate Business Auto policy.

UMBRELLA or EXCESS LIABILITY Contractors may satisfy the minimum liability limits required for Commercial General Liability and Business Auto Liability under an Umbrella or Excess Liability policy. The annual aggregate limit shall not be less than the highest “each occurrence” limit. Contractor agrees to endorse City as an additional insured, unless the Certificate states the Umbrella or Excess Liability provides coverage on a pure “True Follow Form” basis.

ADDITIONAL INSURED ENDORSEMENTS Contractor agrees to endorse the City as an Insured on each insurance policy required to be maintained, with the exception of the worker’s compensation, employers’ liability policy and professional liability insurance. It is agreed that the Contractor’s insurance shall be deemed primary with respect to any insurance or self-insurance program carried by the City.

WAIVER OF SUBROGATION Waiver of subrogation in favor of the City of Bryan for each required policy. When required by the insurer or should a policy condition not permit Contractor to enter into a pre-loss agreement to waive subrogation without an endorsement, then Contractor agrees to notify the insurer and request the policy be endorsed with a Waiver of Transfer of rights of Recovery Against Others, or its equivalent. This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition specifically prohibiting such an endorsement, or voids coverage should Contractor enter into such an agreement on a pre-loss basis.

DEDUCTIBLES, COINSURANCE PENALTIES, & SELF-INSURED RETENTION Contractor shall agree to be fully and solely responsible for any costs or expenses as a result of a coverage deductible, coinsurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, coinsurance penalty, or self-insured retention.

SUBCONTRACTOR’S INSURANCE The Contractor shall agree to cause each subcontractor employed by Contractor to purchase and maintain insurance of the type specified, provided the Contractor’s insurance does not afford coverage on behalf of the subcontractor.

CERTIFICATE OF INSURANCE Contractor shall furnish the City with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements. The certificate must be from a company with an A.M. Best rating of "A-" or better and/or otherwise acceptable to the City. Certificates must be submitted using the ACORD form and all endorsements must be included with the submittal. The certificate(s) shall contain a provision that coverage under such policies shall not be cancelled or non-renewed until at least thirty (30) days prior written notice, or ten (10) days notice for cancellation due to non-payment of premiums, is given the City of Bryan.

If the event the City is notified that a required insurance coverage will cancel or non-renew during the contract period, the Contractor shall agree to furnish prior to the expiration of such insurance, a new or revised certificate(s) as proof that equal and like coverage is in effect. The City reserves the right, but not the obligation, to withhold payment to Contractor until coverage is reinstated. If the Contractor fails to maintain the required insurance, the City shall have the right, but not the obligation, to purchase the required insurance at Contractor's expense.

Certificates and notices should be given to the City at the following address:

City of Bryan
Attn: Purchasing Department
1309 E. MLK Street
Bryan, TX 77808

RIGHT TO REVIEW AND ADJUST The City reserves the right to review these requirements and to modify insurance coverage and their limits when deemed necessary and prudent. Furthermore, the City reserves the right, but not the obligation, to review and reject any insurer providing coverage because of poor financial condition.

INDEMNIFICATION:

The Contractor shall defend, indemnify and save harmless the City and all its officers, agents (including the Engineer of Record), and employees from all suits, actions, or claims of any character, name and description including attorney's fees expenses brought for or on account of any injuries or damages received or sustained by any person or persons or property, by or from the said Contractor or his employees or by or in consequence of any negligence in safeguarding the work, or through the use of unacceptable materials in construction of the work, or by or on account of any act or omission, neglect or misconduct of the said Contractor, or by or on account of any claims of amounts recovered under the Workmen's Compensation Law or any other law, ordinance, order or decree, and so much of the money due the said Contractor under and by virtue of this contract as shall be considered necessary by the City may be retained for the use of the City, or in case no money is due, his sureties shall be held until suit or suits, action or actions, claim or claims for injury or damages as aforesaid shall have been settled and satisfactory evidence to that effect furnished the City. Contractor shall defend, indemnify and save harmless the City, its officers, agents (including the Engineer of Record), and employees in accordance with this indemnification clause regardless of whether the injury or damage is caused in part by the City, its officers, agents or employees.

7.18 ANTITRUST

Contractor hereby assigns to the City any and all claims for overcharges associated with this contract which arise under the antitrust laws of the United States, 15 U.S.C.A. Sec. 1 et seq. (1973).

ITEM 8 - PROSECUTION AND PROGRESS

8.1 SUBLETTING THE WORK

If the Contractor sub-lets any part of the work to be done under this contract, he will not under any circumstances be relieved of his responsibility and obligations. The Contractor shall not sub-let more than 70 percent of the work as measured by the contract price. All transactions of the City Engineer will be with the Contractor. Subcontractors will be considered only in the capacity of employees or workmen, and shall be subject to the same requirements as to character and competency. The City will not recognize any subcontractor on the work. The Contractor shall at all times when the work is in progress be represented by a qualified designated representative. Contractor shall remove and replace subcontractors or workers if Contractor or City deem it necessary to prevent harm to workers, the work or City's property.

8.2 ASSIGNMENT OF CONTRACT

The Contractor shall not assign, transfer, convey or otherwise dispose of the contract or his rights, title or interest in or to the same, or any part thereof, without the previous consent of the City expressed by resolution of the City Council and concurred in by the sureties. If the Contractor does, without such previous consent, assign, transfer, convey or otherwise dispose of the contract or of his right, title or interest therein, or any part thereof to any person or persons, partnership, company, firm or corporation, or by bankruptcy, voluntary or involuntary, or by assignment under the insolvency laws, of any state, attempt to dispose of the contract or make default in or abandon said contract, then the contract may at the option of the City be revoked and annulled, unless the sureties shall successfully complete said contract, and any monies due or to become due under said contract shall be retained by the City as liquidated damages for the reason that it would be impracticable and extremely difficult to fix the actual damages.

8.3 PROSECUTION OF THE WORK

The Contractor shall begin the work to be performed under the contract within fifteen (15) days after the date of the authorization to begin work and shall continuously prosecute same with such diligence as will enable him to complete the work within the time limit specified. He shall notify the City Engineer at least twenty-four (24) hours before beginning work at any point. He shall not open up work to the detriment of work already begun. The beginning, sequence, and prosecuting of the work shall be governed by the orders of the City Engineer, and the Contractor shall conduct his operations so as to impose a minimum interference to the public.

8.4 LIMITATION OF OPERATIONS

The work shall be so conducted as to create a minimum amount of inconveniences to the public. At any time when in the judgment of the City Engineer the Contractor has obstructed or closes or is carrying on operations on a greater portion of the street or public way than is necessary for the proper execution of the work, the City Engineer may

require the Contractor to finish the sections of work which is in progress before operations are started on any additional section.

8.5 CHARACTER OF WORKMEN AND EQUIPMENT

The Contractor shall employ such superintendents, foremen and workmen as are careful and competent, and the City Engineer may demand the dismissal of any person or persons employed by the contractor, in, about or on the work who shall misconduct himself or be incompetent or negligent in the proper performance of his or their duties or neglect or refuse to comply with the directions of the City Engineer, and such person or persons shall not be employed thereon again without the written consent of the City Engineer.

The Contractor shall furnish such equipment as is considered necessary for the prosecution of the work in an acceptable manner, and at a satisfactory rate of progress.

8.6 COMPUTATION OF CONTRACT TIME FOR COMPLETION

The Contractor shall complete the work within the number of working days or calendar days stated in the contract. For the purpose of computation, working days will begin on the date indicated in the written authorization by the City Engineer to proceed.

The City Engineer will furnish the Contractor a monthly statement on forms furnished by the City, showing number of working days charged during the month, total number of working days allowed in contract, and the working days remaining under the contract. The Contractor will be allowed ten (10) days in which to protest the correctness of the statement, otherwise the statement will stand. If the satisfactory completion of the contract shall require unforeseen work or work and materials in greater amounts or quantities than those set forth in the contract, then additional working days or suspension of time charge will be allowed the Contractor equal to the time which, in the opinion of the City Engineer, the work as a whole is delayed.

8.7 FAILURE TO COMPLETE ON TIME

The time of completion is the essence of the contract. For each working or calendar day that any work shall remain uncompleted after the time specified in the Proposal and the Contract, or the increased time granted by the City, or as increased by work or materials ordered as provided in Section 8.6, the sum per day given in the following schedule, unless otherwise specified in the Special Provisions, will be deducted from the monies due the Contractor, not as a penalty but as liquidated damages.

AMOUNT OF CONTRACT \$ TO \$	AMOUNT OF LIQUIDATED DAMAGES PER DAY \$
0 to 10,000	200
10,000 to 25,000	300
25,000 to 50,000	400
50,000 to 100,000	500
100,000 to 500,000	600
500,000 to 1,000,000	700
1,000,000 to 2,000,000	800
2,000,000 to _____	1000

The sum of money thus deducted for such delay, failure or non-completion is not to be considered as a penalty, but shall be deemed, taken and treated as reasonable liquidated damages, since it would be impracticable and extremely difficult to fix the actual damages.

8.8 SUSPENSION BY COURT ORDER

The Contractor shall suspend such part or parts of the work ordered by the Court, and will not be entitled to additional compensation by virtue of such court order. Neither will he be liable to the City in the event the work is suspended by such Court Order.

8.9 TEMPORARY SUSPENSION

The City Engineer shall have the authority to suspend the work wholly or in part for such period or periods as he may deem necessary due to unsuitable weather conditions or any other conditions as are considered unfavorable for the suitable prosecution of the work. If it should become necessary to stop work for an indefinite period, the Contractor shall store all materials in such manner that they will not obstruct or impede the public unnecessarily nor become damaged in any way, and he shall take every precaution to prevent damage or deterioration of the work performed, he shall provide suitable drainage about the work and erect temporary structures where necessary. The Contractor shall not suspend work without written authority from the City Engineer, and shall proceed with the work promptly when notified by the City Engineer to resume operations. The "Time Charge" will be suspended during any such period of suspension.

8.10 SUSPENSION OF WORK AND ANNULMENT OF CONTRACT

The work or any portion of the work under contract shall be suspended immediately on written order of the City Engineer, a copy of such notice to be served on the Contractor's sureties, or the contract may be annulled by the City for any good cause or causes, among others of which special reference is made to the following:

- (a) Failure of the Contractor to begin the work within the time specified.
- (b) Substantial evidence that the progress of the work being made by the Contractor is insufficient to complete the work within the specified time.
- (c) Failure of the Contractor to provide sufficient and proper equipment for properly executing the work.
- (d) Substantial evidence that the Contractor has abandoned the work.
- (e) Substantial evidence that the Contractor has become insolvent or bankrupt, or otherwise financially unable to carry on the work.
- (f) Deliberate failure on the part of the Contractor to observe any requirements of these specifications or to comply with any orders given by the City Engineer as provided for in these specifications.
- (g) Failure of the Contractor to promptly make good any defects in materials or workmanship, or any defects of any nature, the correction of which has been directed in writing by the City Engineer.
- (h) Substantial evidence of collusion for the purpose of illegally obtaining a contract or perpetrating fraud on the City in the construction of work under contract.

When the work is suspended for any of the causes itemized above, or for any other cause or causes, the Contractor shall discontinue the work or such part thereof as the City shall designate, whereupon the sureties may at their option assume the contract or that portion thereof which the City has ordered the Contractor to discontinue, and may perform the same or may, with the written consent of the City, sub-let the work or that portion of the work so taken over, provided, however, that the sureties shall exercise their option within 15 days after the written notice to discontinue the work has been served upon the Contractor and upon the sureties or their agents. The sureties in such event shall assume the Contractor's place in all respects, and shall be paid by the City for all work performed by them in accordance with the terms of the contract. All monies remaining due the Contractor at the time of his default shall thereupon become due and payable to the sureties as the work progresses, subject to all terms of the contract. In case the sureties do not, within the herein above specified time, exercise their right and option to assume the contract or that portion thereof which the City has ordered the Contractor to discontinue, then the City shall have the power to complete by contract or otherwise, as it may determine, the work herein described or such part thereof as it may deem necessary, and the Contractor hereto agrees that the City shall have the right to take possession of and use any of the materials, plant, tools, equipment, supplies, and property of every kind provided by the Contractor for the purpose of this work and to procure other tools, equipment and materials for the completion of the same, and to charge to the account of the Contractor the expense of said contract for labor, materials, tools, equipment and expenses incident thereto. The expense so charged shall be deducted by the City out of such monies as may be due or may at any time thereafter become due the Contractor under and by virtue of the contract or any part thereof. The City shall not be required to obtain the lowest bid for the work of completing the contract, but the expenses to be deducted shall be the actual cost of such work. In case such expense is less than the sum

which would have been payable under the contract if the same had been completed by the Contractor, then in such case the City may pay to the Contractor the difference in the cost, provided that the Contractor shall not be entitled to any claim for damages or for loss of anticipated profits. In case such expense shall exceed the amount which would have been payable under the contract if the same had been completed by the Contractor, then the Contractor and his sureties shall pay the amount of such excess to the City on notice from the City of the excess due. When any particular part of the work is being carried on by the City by contract or otherwise under the provisions of this section, the Contractor shall continue the remainder of the work in conformity with the terms of the contract, and in such manner as in no wise to hinder or interfere with the performance of workmen employed as above provided by the City.

8.11 TERMINATION OF CONTRACT

The contract will be considered fulfilled, save as provided in any maintenance stipulations, bond, or by law, when all work has been completed, the final inspection made by the City Engineer, and final acceptance and final payment made by the City.

ITEM 9 - MEASUREMENT AND PAYMENT

9.1 MEASUREMENT OF QUANTITIES

The determination of quantities of work acceptably completed under the terms of the contract, or as directed by the City Engineer in writing, will be made by the City Engineer, based on measurements made by the City Engineer. These measurements will be taken according to the U.S. Standard measurements used in common practice and will be the actual length, area, solid contents, numbers and weights.

9.2 SCOPE OF PAYMENT

The Contractor shall receive and accept the compensation, as herein provided, in full payment for furnishing all labor, tools, materials, equipment and incidentals; for performing all work contemplated and embraced under the contract; for all loss or damage arising out of the nature of the work, or from the action of the elements; for any unforeseen defects or obstruction which may arise or be encountered during the prosecution of the work, and before its final acceptance by the City Engineer; for all risks of whatever description connected with the prosecution of the work; for all expense incurred by or in consequence of suspension or discontinuance of such prosecution of the work as herein specified; for any infringement of patents, trademarks, or copyrights, and for completing the work in an acceptable manner according to the Plans and specifications. The payment of any current or partial estimate prior to final acceptance of the work by the City shall in no way constitute an acknowledgment of the acceptance of the work, nor in any way prejudice or affect the obligation of the Contractor to repair, correct, renew, or replace, at his own expense, any defects or imperfections in the construction, or in the strength or quality of the materials used in or about construction of the work under contract and its appurtenances nor any damage due or attributed to such defects, which defects, imperfections, or damage shall have been discovered on or before the final inspection and acceptance of the work. The City Engineer shall be the sole judge of such defects, imperfections, or damage, and the Contractor shall be liable to the City for failure to correct the same, as provided herein.

Any item of work not covered in the proposal will not be paid for directly, but shall be considered as subsidiary to a regular bid item.

9.3 PAYMENT FOR EXTRA WORK

The extra work done by the Contractor and authorized and approved by the City Engineer will be paid for in the manner hereinafter described and the compensation thus provided shall be accepted by the Contractor as payment in full for all labor, materials, tools, equipment and incidentals and all superintendents and timekeepers services, all insurance, bond and all other overhead expense incurred in the prosecution of the extra work. Payment for extra work will be made by one of the following methods:

- (a) Method "A" - By unit prices agreed on in writing by the City Engineer and approved by the City before the said work is commenced, subject to all other conditions of said contract.
- (b) Method "B" - By lump sum price agreed on in writing by the City Engineer and the Contractor and approved by the City before said extra work is commenced, subject to all other conditions of the contract.

For emergency field changes, the Contractor shall not proceed with any work that would require a Change Order to the contract without verbal approval, followed up by written approval of the City Engineer. The Contractor shall execute a project Change Order within one (1) working day of the Notice to Proceed with Emergency Work.

Under normal working conditions (non-emergency), the Contractor will not proceed with the required work identified in a Change Order until an approved Change Order is provided to the Contractor.

9.4 PARTIAL ESTIMATES

By the 25th day of each month, the Contractor will make an approximate estimate of the value of the work done during the month under these specifications and submit the estimate to the City Engineer for review. The City Engineer will review the payment request and an approved payment will be made by the 15th day of the following month. Whenever the said estimate or estimates of work done since the last previous estimate exceeds five hundred dollars (\$500) in amount, a percentage of such estimated sum will be paid the Contractor on or before the 15th day of the month following. The partial estimate may include acceptable non-perishable materials delivered to the work for which one hundred percent (100%) or the net invoice will be allowed. The percent retained by the City will be ten percent (10%) on all partial estimates of the total amount of work completed. Five percent (5%) will be retained by the City on all partial estimates if the contract amount is four hundred thousand dollars (\$400,000) or more. The Contractor shall furnish the City of Bryan such detailed information as requested to aid in evaluating partial estimates. It is understood that the partial monthly estimates and payments will be subject to review and correction by the City of Bryan of the estimate rendered following discovery of an error in the current and any previous estimate, and no such estimate shall in any respect be taken as an admission of the City of the amount of work done or of its quality of sufficiency nor as an acceptance of the work or the release of the Contractor of any of his responsibility under the contract. No partial or monthly estimates will be made on contracts with a value of less than fifteen thousand dollars (\$15,000).

9.5 FINAL ACCEPTANCE

Whenever the improvement provided for by the contract shall have been completely performed on the part of the Contractor, the Contractor shall notify the City Engineer that the improvements are ready for final inspection. The City Engineer will then make such final inspection, and if the work is satisfactory and in accordance with the Specifications and Contract, he will give the Contractor a written Letter of Acceptance.

9.6 FINAL PAYMENT

Whenever the improvements provided for by the contract shall have been completely performed on the part of the Contractor as evidenced by the City Engineer in the Letter of Acceptance, a final estimate showing the value of the work will be prepared by the City Engineer as soon as the necessary measurements and computations can be made. All prior estimates upon which payments have been made are subject to necessary corrections or revisions in the final payment. The amount of this final estimate less any sums previously paid under the provisions of the contract, will be paid the Contractor within thirty (30) days after final acceptance provided the Contractor has furnished the City satisfactory evidence that all sum of money due for any labor, materials, apparatus, fixtures, or machinery furnished for and used in the prosecution of the work, or that the person or persons to whom the same may respectively be due have consented to such final payment. The acceptance by the Contractor of the last payment as aforesaid shall operate as and shall release the City from all claims and liabilities under the contract or for any act or neglect of said City relating to or connected with the contract.

It shall be the responsibility of the prime Contractor to have all subcontractors submit affidavits to the City Engineer stating that they have been compensated for services performed before release of the prime Contractor's retainage. The prime Contractor shall also submit an affidavit stating that all suppliers have been paid.

9.7 GUARANTEE OF WORK

The Contractor shall guarantee the work which he does against defective materials and workmanship for a period of one (1) year from the date of a letter of final acceptance by the City of Bryan, Texas. Should defective materials or workmanship occur, the Contractor shall have seven (7) working days, after written notice of same is given to him by the City of Bryan, Texas, to make any and all repairs at his own expense. If the Contractor fails to correct the defect within the seven (7) working days, then the City may make the necessary repairs and charge the Contractor with the actual cost of all labor, materials and equipment time required.

The Contractor shall have his Performance Bond to continue for one (1) year after final acceptance of the work to cover the guarantee as set forth above.

CERTIFICATE OF INSURANCE		DATE (MM/DD/YY)
PRODUCER	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
INSURED		INSURERS AFFORDING COVERAGE
		INSURER A:
		INSURER B:
		INSURER C:
		INSURER D:
		INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THEIR TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> OWNER'S & CONT. PROT <input type="checkbox"/> OWNER'S PROTECTIVE LIABILITY GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC				EACH OCCURRENCE	\$ 1,000,000
					FIRE DAMAGE (Any one fire)	\$ 50,000
					MED EXP (Any one person)	\$ 5,000
					PERSONAL & ADV INJURY	\$ 1,000,000
					GENERAL AGGREGATE	\$ 1,000,000
					PRODUCTS – COMP/OP AGG	\$ 1,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
					BODILY INJURY (Per person)	\$
					BODILY INJURY (Per accident)	\$
					PROPERTY DAMAGE (Per accident)	\$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY-EA ACCIDENT	\$
					OTHER THAN AUTO ONLY	EA ACC AGG \$
						\$
C	EXCESS LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$				EACH OCCURENCE	\$
					AGGREGATE	\$
						\$
						\$
						\$
D	WORKERS COMPENSATION AND EMPLOYER'S LIABILITY				<input checked="" type="checkbox"/> WC STATU- <input type="checkbox"/> OTHER TORY LIMITS	
					E.L. EACH ACCIDENT	\$ 500,000
					E.L. DISEASE-EA EMPLOYEE	\$ 500,000
					E.L. DISEASE-POLICY LIMIT	\$ 500,000
	OTHER					

DESCRIPTION OF OPERATIONS / LOCATION / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS		
City of Bryan shall be named as additional insured on all Commercial General Liability <u>and</u> Automobile Liability policies. All policies to include a Waiver of Subrogation in favor of the City of Bryan. (All Endorsements must be submitted with the certificate).		
CERTIFICATE HOLDER	ADDITIONAL INSURED; INSURER LETTER: _____	CANCELLATION
City of Bryan Attn: Purchasing Department 1309 E. Martin Luther King Bryan, Texas 77803		SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BY CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL <u>30</u> DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.
		AUTHORIZED REPRESENTATIVE

CONTRACT

THE STATE OF TEXAS }
COUNTY OF BRAZOS }

THIS MEMORANDUM OF AGREEMENT this day made and entered into by and between the City of Bryan, a Municipal Corporation, Party of the First Part, and for brevity hereinafter called "City", and _____

Party of the Second Part, and for brevity hereinafter called "Contractor",

WITNESSETH

1.

That for the consideration hereinafter agreed to be paid by the City of Bryan, the said Contractor undertakes, covenants, and agrees to perform the work herein contracted to be done, in every detail conforming to the advertisement, proposal, specifications, including special provisions, plans, or working drawings, and special agreements, on a certain public work described as:

TURKEY CREEK TRAIL SIDEWALK IMPROVEMENT

City Project No. 572 D5-0615

for the not to exceed sum of _____ (\$_____)

2.

The Contractor hereby agrees to commence work under this Contract on a date to be specified in a work order of the City Engineer, and to complete fully all work hereunder within 60 calendar days thereafter. The Contractor further agrees to pay as liquidated damages the sum of _____ for each consecutive working day used over and above the above mentioned work time.

3.

The City agrees that by the 25th day of each month the Contractor will make an approximate estimate of the value of the work done during the month under the Contract. Whenever the said estimates of work done since the last previous estimate exceeds \$500.00 in amount, 90% of such estimated sum will be paid to the Contractor on or before the 15th day of the month next following. When the contract amount is \$400,000.00 or more, 95% of such estimated sum will be paid. The partial estimate may include acceptable, non-perishable materials delivered to the work. Such payment will be allowed on a basis of 100% of net invoice value. The Contractor shall furnish the City of Bryan such detailed information as may be requested to aid as a guide in evaluating partial estimates.

4.

It is further mutually agreed that should it appear to the City, or to the Engineer in charge that at any time during the existence of this Contract, the sureties on the said Contractor's bond have become insolvent, bankrupt, or otherwise financially unable to protect the City under the terms of the said Contract, the City may demand the said Contractor to furnish additional security in some approved surety company satisfactory to the City: the act of the City or the Engineer, with reference to demanding new or additional security, shall never be construed to relieve the original sureties of their obligation under the said Contract, or in any way to relieve the Contractor. The City may stop the said work under the Contract until additional security has been furnished by the said Contractor, and the City shall in no case be liable to the said Contractor on account thereof. The City may exercise its rights as provided in the attached specifications to take charge of the said work in the event of the refusal or failure of the Contractor to comply with the demands of the City with reference to furnishing additional security.

5.

That in consideration of the Contractor fully and faithfully complying with all the terms, provisions, and stipulations of this contract, the City of Bryan undertakes, covenants, and agrees to pay to the said Contractor for the furnishing of all material and labor, and the performance of the work herein contracted for the following sums or prices as shown by the attached proposal of bid of the Contractor, which said prices shall be the full compensation to be received by the said Contractor under the terms of this contract: Performable and enforceable in Brazos County, Texas.

IN TESTIMONY WHEREOF, the City of Bryan has caused this instrument to be signed in its corporate name, and on its behalf, by its Mayor thereof, attested by its City Secretary, with its corporate seal affixed, and the said _____
_____thereby binding themselves, their heirs, successors, assigns, and representatives for the faithful and full performance of the terms and provisions of this contract, individually, jointly and severally.

EXECUTED in duplicate original this _____day of _____, 20____, at Bryan, Texas, where this contract is performable and enforceable.

Approved as to Form:

Michael Cosentino - City Attorney

Prepared and Recommended:

W. Paul Kaspar – Assistant City Engineer

Approved for Processing:

Linda Grubbs Huff, P.E.
Acting Public Works Director

Approved for Council:

Kean Register – Acting City Manager

Party of the First Part
CITY OF BRYAN, TEXAS
Approved:

BY: _____
Ernie Wentrcek - Mayor

Attest:

Mary Lynne Stratta - City Secretary

Party of the Second Part
(CONTRACTOR)

BY: _____
President

Attest:

Witness

Bond No. _____

PERFORMANCE BOND

STATE OF TEXAS
COUNTY OF

KNOW ALL MEN BY THESE PRESENTS That _____
of the City of _____, County of _____, and State of _____, as
principal, and _____ authorized under the laws of the State of
Texas to act as surety on bonds for principals, are held and firmly bound unto the City of Bryan
of Brazos County, Texas (Owner), in the penal sum of _____
_____(\$ _____) for the payment whereof,
the said Principal and Surety bind themselves and their heirs, administrators, executors,
successors and assigns, jointly and severally by these presents:

WHEREAS, the Principal has entered into a certain written contract with the Owner,
dated the day _____ of _____, 20____, to furnish all labor, materials and
equipment necessary for completing _____

which contract is hereby referred to and made a part hereof as fully and to the same extent as if
copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that
if the said Principal shall faithfully perform said Contract and shall in all respects duly and
faithfully observe and perform all and singular the covenants, conditions and agreements in and
by said contract agreed and covenanted by the Principal to be observed and performed, and
according to the true intent and meaning of said Contract and the Plans and the Specifications
hereto annexed, then this obligation shall be void; otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of
Chapter 2253, Government Code, Vernon's Texas Civil Statutes and all liabilities on this bond
shall be determined in accordance with the provisions of said Code to the same extent as if it
were copied at length herein.

Surety, for value received, stipulates and agrees that no change, extension of time,
alteration or addition to the terms of the contract, or to the work performed thereunder, or
the plans, specifications or drawings accompanying the same, shall in anywise affect its
obligation on this bond, and it does hereby waive notice of any such change, extension of
time, alteration or addition to the terms of the contract, or to the work to be performed
thereunder. Performable and enforceable in Brazos County, Texas.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20 ____ .

Principal

Surety

By _____

Title _____

Title _____

Title _____

Address _____

Address _____

The name and address of the Resident Agent of Surety is:

Corporation Seal if Corporation.

Bonding Company Seal if Bonding Company.

Bond No. _____

PAYMENT BOND

STATE OF TEXAS
COUNTY OF

KNOW ALL MEN BY THESE PRESENTS That _____
of the City of _____, County of _____, and State of _____,
as principal, and _____ authorized under the
laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto
the City of Bryan of Brazos County, Texas (Owner), in the penal sum of _____
_____ (\$ _____)
for the payment whereof, the said Principal and Surety bind themselves and their heirs,
administrators, executors, successors and assigns, jointly and severally by these presents:

WHEREAS, the Principal has entered into a certain written contract with the Owner,
dated the
____ day of _____, 20____, to furnish all labor, materials and equipment necessary for
completing _____

which Contract is hereby referred to and made a part hereof as fully and to the same extent as if
copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that
if the said Principal shall pay all claimants supplying labor and materials to him or a
subcontractor in the prosecution of the work provided for in said contract, then, this obligation
shall be void; otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of
Chapter 2253, Government Code, Vernon's Texas Civil Statutes and all liabilities on this bond
shall be determined in accordance with the provisions of said Code to the same extent as if it
were copied at length herein.

Surety, for value received, stipulates and agrees that no change, extension of time,
alteration or addition to the terms of the contract, or to the work performed thereunder, or
the plans, specifications or drawings accompanying the same, shall in anywise affect its
obligation on this bond, and it does hereby waive notice of any such change, extension of
time, alteration or addition to the terms of the contract, or to the work to be performed
thereunder. Performable and enforceable in Brazos County, Texas.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20____.

Principal

Surety

By _____

Title _____

Title _____

Title _____

Address _____

Address _____

The name and address of the Resident Agent of Surety is:

Corporation Seal if Corporation.

Bonding Company Seal if Bonding Company.

CONTRACTOR'S AFFIDAVIT OF BILLS PAID

STATE OF TEXAS §

COUNTY OF BRAZOS §

Personally, before me the undersigned authority, on this day appeared _____
, who being duly sworn, on oath, says that he is the legal representative of _____
_____ and that Contract No. _____
_____ for the construction of the project
designated as _____

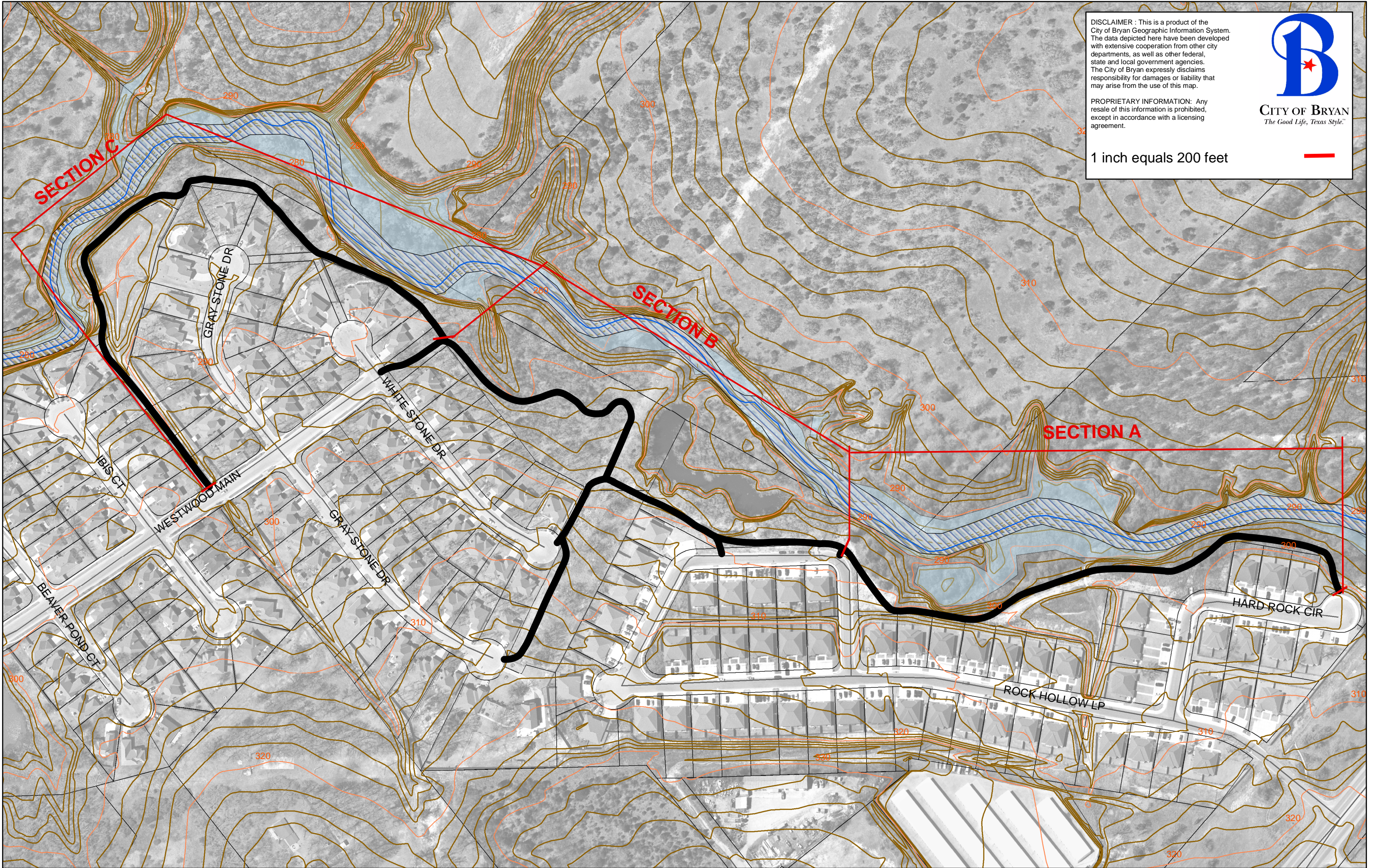
has been completed in accordance with the Plans and Specifications and Contract Documents,
and that all bills for materials, apparatus, fixtures, machinery, and labor used in connection with
the construction of this project have, to the best of his knowledge and belief, been fully paid.

BY: _____
Representative for the Contractor

SWORN TO AND SUBSCRIBED BEFORE ME this the _____ day of _____, 20____
.

Notary Public in and for
Brazos County, Texas

(S E A L)



DISCLAIMER : This is a product of the City of Bryan Geographic Information System. The data depicted here have been developed with extensive cooperation from other city departments, as well as other federal, state and local government agencies. The City of Bryan expressly disclaims responsibility for damages or liability that may arise from the use of this map.

PROPRIETARY INFORMATION: Any resale of this information is prohibited, except in accordance with a licensing agreement.



CITY OF BRYAN
The Good Life, Texas Style.™

1 inch equals 200 feet

